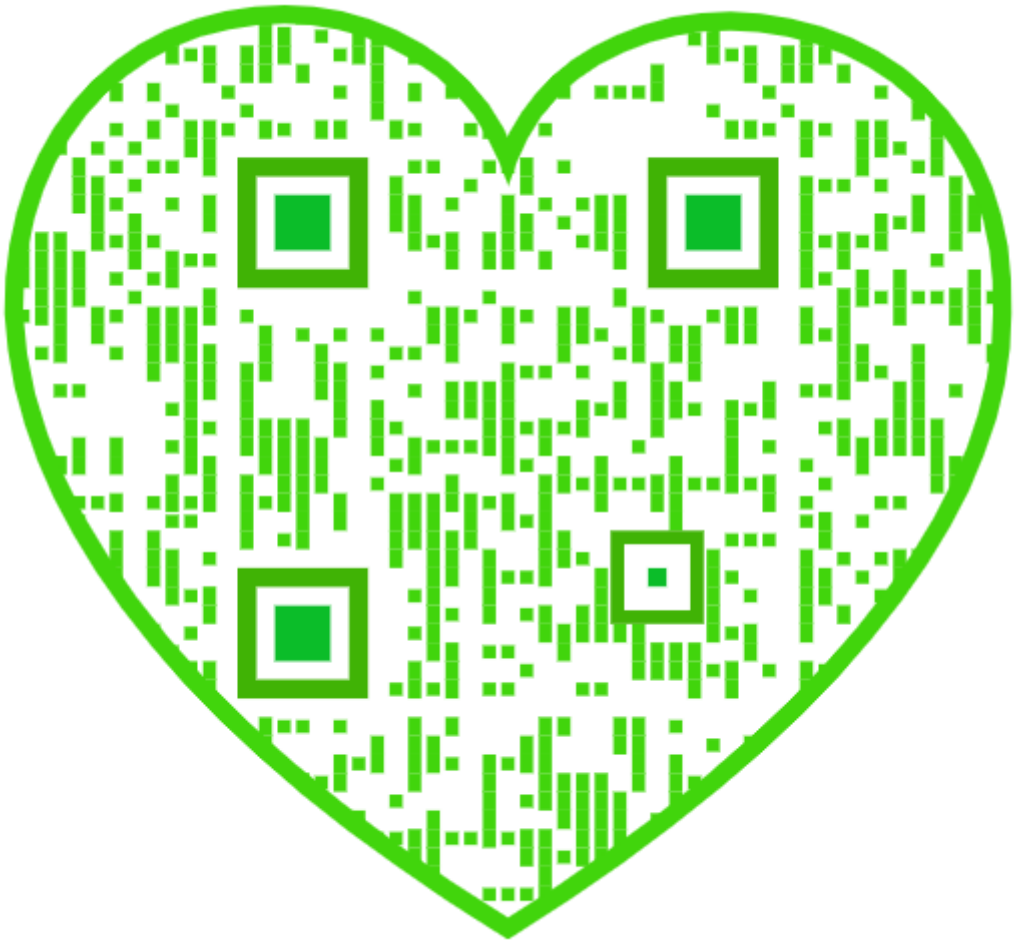

PSYCHOLOGIC METHOD IN TEACHING

BY

WILLIAM ARCH McKEEVER, M. A., PH. M.

PROFESSOR OF PHILOSOPHY IN THE KANSAS STATE AGRICULTURAL COLLEGE

AUTHOR OF "PSYCHOLOGY AND HIGHER LIFE"

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TO MY TWO SONS

HAROLD (October 30, 1900)

AND

WENDELL (May 18, 1905)

THIS BOOK IS

HOPEFULLY DEDICATED

PREFACE

No APOLOGY is offered for making this treatise a somewhat elementary one. A majority of the public-school teachers of the United States are comparatively young and inexperienced; especially are those of the rural schools apt to be so. According to an estimate based on statistics from three typical counties in a typical middle-western state, the average term of experience of the newly elected district-school teachers was less than three years. Only thirteen per cent of these had attended a normal school. But these figures are probably too high. The Superintendent of Public Instruction of the same state estimates that more than one third of the district schools of the entire state are in charge of inexperienced teachers.

Statistics gathered by the national Bureau of Education in 1904 show that in cities of eight thousand inhabitants or over, twenty-five per cent of the teachers had taught only four years, or less. But here the conditions for length of service are much more favorable than in rural schools. Now I believe that this fact of the comparative inexperience of common-school teachers must be kept in mind by the writer who would most directly benefit them.

In writing this book I have attempted to keep a number of other important matters in view, some of them being:

(1) That the best teacher is the one who is constantly developing his resourcefulness and insight through experience; (2) that the child is always to be viewed optimistically—i. e., as one possessing many good, but probably latent, potentialities which the teacher's insight must discover and bring out by means of the child's experience; and (3) that an understanding of principles and meanings through conscious experience rather than memory methods, is to be the predominating rule in the education of the young.

My views on Educational Psychology have been matured and greatly influenced by the reading of the many published works of Professors James, Dewey, Baldwin and Boyce, and by lectures taken under all but the first named.

I am greatly indebted to my colleagues, Professors J. E. Kammeyer and Wm. H. Andrews—to the former for many valuable criticisms and suggestions; to the latter for carefully reading the proof sheets and for advice as to the arrangement of the subject matter of the book. Mr. Charles W. Burkett, manager of the New York office of the Orange-Judd Co., has given me valuable assistance in the preparation of the chapter on Elementary Agriculture; and Miss Ella Weeks, of the Kansas State Agricultural College, in the preparation of the chapter on Art and Industry.

WILLIAM A. McKEEVER.

MANHATTAN, KANSAS, February, 1909.

CONTENTS

PART I THE GROUNDWORK

CHAPTER I

THE MEANING OF EDUCATION

An Allegory 3
Too Much Mechanicalness 4
A Beginning 4
Have a Theory 5
Not Metaphysics 5
Some Ends Less Remote 6
A Vocation 6
Race History 7
Human-Nature Study 8
Current Events Interpreted 8
Power of Growth 9
Appreciating the Commonplace 9
The Child's Society 10

REFERENCES 12

CHAPTER II

THE FIRST LESSONS

Inventory 13
No Innate Ideas 13
Simple Instincts 14
Self-Activity 15

Further Meaning of Impulses 16
The School of Adversity 17
The Beginnings of Habit 18
The Problem 19
The Beginner 19
The Central Nervous System 20
Reaction 22
Brain-Building 23
The School of Experience 23

REFERENCES 25

CHAPTER III

THE MEANING OF ERROR IN EDUCATION

Every Error Recorded 26
A False View 26
In Æsthetics and Ethics 28
Result of Bad Suggestion 29
Emotional Value 30
In Volition 32
Function of the Teacher 32

REFERENCES 34

CHAPTER IV

PREPARATION OF THE TEACHER

Present Conditions 35
A Practical Problem 35
A Weak Spot 36
Too Much Review 38
The Source of Power 38
An Abomination 39
Thought Germination 39
District-School Teaching 41
Good Expression 41
The Normal Course 42

Summer Schools 44
A Course in Reading 45

REFERENCES 49

CHAPTER V

PSYCHOLOGIC PRINCIPLES

The Steps in Detail 50
Higher Distinctions 51
How Perception Goes On 52
Imagination in Teaching 52
Memory 54
Making Impressions 55
The Old Question of Attention 55
The Nerves Remember 57
Retaining Impressions 57
Recalling Impressions, the Logical Memory 58
Thinking 58
Imitation 59
Conclusion 60

REFERENCES 62

CHAPTER VI

THE RECITATION

Importance 63
First Purpose to Develop the Individual 63
To Test Knowledge 64
To Test Ignorance 64
To Eradicate Backwardness 65
To Improve Thinking 66
To Develop Expression 66
To Connect the School and Society 68
To Bring Out Individuality 68
Preparation of the Teacher 70
Reviewing 70

Outside Reading 70
Self-Confidence 71
Assigning Lessons 71
Art of Study Acquired by Pupil 72
Finding a Problem 73
Significant Lesson Features 75
Time to Study 75
Reference Work 76

REFERENCES 77

CHAPTER VII

THE RECITATION—(Continued)

The Problem 78
The Topic Method 79
Questions and Answers 80
Leading Questions 82
Some Small Matters 82
Off the Subject 83
Stand or Sit 84
Daily Grading 85
Reviews 86
Examinations 86

PART II THE SPECIAL BRANCHES OF INSTRUCTION

INTRODUCTORY 93

CHAPTER VIII

READING

Self-Examination 95
The Ultimate Aim 96
A Less Remote Aim 97
Which Method? 98
The Word Method 99

The Sentence Method 99
The A-B-C Method 100
The Secret of Success 101
The First Lesson 101
Go Slowly 102
The Technique of Reading 104
Technique and Motive 105
The Spirit of the Lesson 106
Criticism by Pupils 108
The Teacher's Opportunity 108
Supplementary Reading 109

REFERENCES 111

CHAPTER IX

LANGUAGE AND COMPOSITION

Language 112
The Aims of Constructive Language-Teaching 112
The Lesson Plan 112
Additional Topics and Methods 113
Reconstructive, or Corrective, Language-Teaching 114
Imitation 114
The Problem Stated 115
Oral Teaching 116
Stir Them Up 117
The Problem Twofold 117
Written Composition 118
When and How to Begin 120
Choosing a Theme 120
A Definite Plan 121
Practice and Habit 122
Outlining the Theme 123
The Recitation Period 125
Gathering Material 126
Study Good Examples 127
Topics for Themes 128

REFERENCES 132

CHAPTER X

ELEMENTARY MATHEMATICS

Numbers 133
Make the First Lessons Concrete 134
Instinct for Counting 134
A Definite Aim 135
Developing the Abstract 136
Back to the Concrete 138
More Advanced Work 138
Fractions 139
Arithmetic 140
The Aims 140
The Special Subjects 144
Exercises 146
Elementary Algebra 148
Nature of the Subject 148
Theorems in Multiplication 150
Similar Operations 152
Factoring 152

REFERENCES 153

CHAPTER XI

ART AND INDUSTRY

Drawing 154
The Child's Nature 155
Is There an Instinct for Drawing? 155
The Imaginative Period 156
Proceed Slowly 156
Subjects for Imaginative Period 156
The Coördinative Period 159
The New Mental Attitude 159
Subjects for Coördinative Period 160
The Æsthetic Period 162

Little Direction Necessary 162
Subjects for Æsthetic Period 163
The School Garden 164
Meaning of Manual and Industrial Education 164
What Can Be Accomplished? 165
Management 165
Plotting the Ground 166
Preparing and Planting 166
Care and Handling 167

REFERENCES 168

CHAPTER XII

GEOGRAPHY AND NATURE STUDY

Geography All-Inclusive 169
Objects of Nature Study 173
Not Science 173
May Be a Related Subject 174
How the Child-Mind Acts 175
Study Processes 175
Study Purposes 176
Character-Building Considered 177

REFERENCES 180

CHAPTER XIII

ELEMENTARY AGRICULTURE

A Public-School Subject 181
Who Can Teach It? 182
Who Is to Study Agriculture? 183
How to Make Agriculture Interesting 184
Make a Few Excursions 185
Encourage Questions 185
A Course of Instruction 185
Lessons on the Soil 186

The Plant 188
Enemies of Plants 189
Farm Products 190
Orchard and Garden Produce 191
Domestic Service Animals 192
Domestic Animals for Food 193
Farm Improvements and Adornments 194

BOOKS FOR SCHOOL LIBRARIES 195

CHAPTER XIV

ENGLISH GRAMMAR

Relation to Language-Study 196
Why Study Grammar? 197
A Practical Subject 198
The Meaning of Terms 200
Rules of Practice 201

REFERENCES 208

CHAPTER XV

HISTORY AND CIVIL GOVERNMENT

What Is History? 209
The Groundwork 210
The War Element 211
Diplomacy vs. War 213
Current History 214
The Recitation in History 216
Civil Government 217
The Departments of Government 219
The Various Forms 220
The United States 220
Teaching Patriotism 222

REFERENCES 224

CHAPTER XVI

PHYSIOLOGY AND HYGIENE

Purposes of Instruction 225
Methods of Instruction 227
Keep Out the Morbid 229
Use Simple Terms 230

REFERENCES 234

CHAPTER XVII

GENERAL EXERCISES

Music 235
Some Specific Values 235
The Teacher's Musical Ability 237
The Devotional Service 244
Current Events 245
The Rhetoricals 247

PART III MORAL INSTRUCTION

CHAPTER XVIII

THE TEACHER'S PERSONALITY

Indirect Instruction 255
Fullness of Experience 256
A Broader Sympathy 257
Tolerance 258
Consistency and Frankness 260
High Ideals 261
Self-Knowledge and Self-Mastery 262
Firmness 264
Spiritual-Mindedness 266

REFERENCES 268

CHAPTER XIX

MENTAL ATTITUDE OF THE PUPIL

Developing Sentiment 269
Pointing Out Pitfalls 271
Some Mental Effects 273
Holier Than Thou 274
The Spirit of Democracy 275
Rewards and Prizes 276
Private Talks 277
The Awakening Consciousness 280

REFERENCES 281

CHAPTER XX

THE RULES OF THE SCHOOL

Policy of School Government 282
The Ends to Be Sought 282
Few Rules 283
Certain Rules Inadvisable 285
The Sentiment of the School 286
The Reformation 287
Punishment 287
A Double Wrong 289
Manner of Punishment 289
Corporal Punishment 290
True Affection 291
Tonic Effect 292

REFERENCES 294

CHAPTER XXI

DEMOCRACY IN THE SCHOOL

Conflicting Tendencies 295
The Beginnings of Aristocracy 295

Wrong Incentive 296
Our History Democratic 299
The Real Nobility 300
Public Conscience 301
Methods of Procedure 302
The Spirit of Work 304
Emotional Experience 305

REFERENCES 308

CHAPTER XXII

THE MORAL ASPECTS OF ATHLETICS

The Child's Nervous Energy 309
Directed Impulse 309
Morality and Strength of Body 310
Every Teacher a Physical Director 311
The Question of Rivalry 314
The Moral Aspect 315
An Example 317
Athletics for the School 318
A Cure for Depravity 319

REFERENCES 322

CHAPTER XXIII

SCIENTIFIC CHILD-TRAINING

Old-Fashioned Methods 323
Agricultural Experiment Stations 323
Well-Born but Poorly Reared 325
A Scientific Method Suggested 326
Mental Development Recapitulated 327
Man Long an Infant 329
A Question Outline 330

REFERENCES 332

INTRODUCTION

THE annual output of books on various phases of education in this country and in Europe is well nigh bewildering. Some of these treatises are technical in character and appeal to special classes of readers, but the vast majority are designed to benefit a much larger constituency. Unless it be those that treat of the historical development of educational systems, the others are chiefly devoted to a discussion of the nature and possibilities of the child as an object of training and culture, or to the subject-matter with which it must become familiar in books and with the outside world.

During the last two decades the meaning and scope of education have been both widened and deepened, and attention, instead of being centered so much on the subject-matter of instruction, is now centered in the child as a creature susceptible of continuous development. This is the standpoint of the author of "Psychologic Method in Teaching," who sets forth his views in remarkably simple and clear language. In no chapter has he written above the head of the young man or the young woman just beginning his or her first country school. One of the chief faults with most of the educational writers of the present day, is a straining for effect in trying to appear very learned in order to be

rated as a psychologist, sociologist, biologist, or some other high-sounding disturber of commonplace things.

This volume is a message from a teacher to teachers, and it is told so that they can understand it, digest each chapter, assimilate it, and use it in their everyday work. The reader is told what to see, how to interpret it when it is seen, and then how to manage it so as to produce the most direct and beneficial results to the child. The object is to give the teacher an insight into the forces that are employed in developing and training a human being from infancy to old age.

The work is divided into three parts. The first embodies the theory of education in which the principles and method are discussed briefly, yet clearly, so that any reader of ordinary understanding can comprehend and see the bearing of each chapter on the general scope and character of instruction. The nature, the condition, the aptitudes of the child are emphasized sufficiently to impress the teacher with the meaning and significance of education in its best sense.

The chapter on the "Meaning of Error in Education" is a new presentation of a much-neglected phase of this many-sided subject, and it is a valuable contribution to the vast volume of educational literature of this country. Or stating the same thing in another form, when pupils are perfect in behavior and recitation, it is an appropriate time to investigate the condition of that school to break up stagnation.

The other divisions of the volume present methods of

handling the different subjects to be taught in the common schools. Different methods are presented and discussed as guides by which to work, and they are in each case practical, suggestive and helpful, so that the teacher with moderate insight will not be groping his way in the dark.

The teacher who can read himself or herself into each chapter will find this a most stimulating volume, and in no instance is the author tedious or uninteresting. It is just such a treatise as teachers need for home study, reading circles, county institutes, and training classes in normal schools. It is written by a teacher for teachers, and no one, whether parent or teacher, who begins to read this book will willingly put it aside till the last sentence is read. In reading the manuscript, like Oliver Twist, when I came to the end, I wanted more!

J. M. GREENWOOD.

KANSAS CITY, MISSOURI, February 18, 1909.

PART I

THE GROUNDWORK

PSYCHOLOGIC METHOD IN TEACHING

CHAPTER I

THE MEANING OF EDUCATION

An Allegory. Some one has related a story in substance as follows: Once upon a time a man skilled in the use of carpenters' tools went forth to ply his trade. He was faithful in the performance of his tasks, and he strove hard and earnestly to carry on his work in strict accordance with the specifications made out by others for his guidance.

Now, it chanced that this good man was engaged constantly in raising the first part of the superstructure—that is, the framework erected upon foundations already laid—of a certain class of buildings. After many years of conscientious effort this faithful tradesman acquired a high degree of efficiency. He displayed a remarkable memory for the small details of his work; e. g., he remembered readily the number and kind of nails to be used in securing each piece of timber, and how to saw or chisel or mortise each and every beam, as well as how to make the joints and cross connections. In short, this skillful artisan, whose name was Skolastikos, was painstaking and conscientious and thor-

oughly in love with his work, and those with whom he labored were very fond of him. If he possessed a fault at all, it was probably this: It did not occur to him to try to gain any adequate knowledge of the purpose or the meaning of either the foundation or the completed whole of the structure upon which he was engaged.

Too Much Mechanicalness. The author's purpose in introducing this treatise on method in education with so crude and homely a representation as the foregoing is to indicate, if possible, the objectionable nature of some of the work being done in our public schools. Although faithful and diligent almost to a fault, the common-school teacher often is inclined to be short-sighted and mechanical in the presentation of the ordinary lesson. An attempt will be made later to show that this mechanicalness is due in part, (1) to the teacher's failure to acquire for himself an adequate conception of the basic principles or the ultimate meaning of education; (2) to his lack of a comprehensive grasp of the subject taught, which is secured only by wide knowledge of kindred subjects; (3) to a failure to develop and draw upon his own native resources in the work of teaching.

A Beginning. In beginning this discussion of the meaning of education let us ask a common-sense question or two. For example: (1) What are some of the distinguishing marks you would have a person possess after his formal education is finished and his character relatively matured? In other words, what do you desire the boy or the girl under your instruction ultimately to become? (2)

What sort of member of juvenile society do you desire him to be as he proceeds on his way to the ultimate goal of his instruction?

Now, it is admitted that no two thoughtful persons would answer the first question in precisely the same way. Such specific agreement could be neither expected nor regarded as necessary. It seems fair to say, however, that every one who teaches the young ought at least to give this matter serious thought—if for no other reason, in the interest of acquiring a better method. Such contemplation or reflection on the part of every teacher would tend to do away with the short-sightedness that characterizes much of the present-day schoolroom work.

Have a Theory. It is recommended that every teacher have a theory of his own as to what the ultimate goal of education is. This theory will develop and take on wider and more definite limits as experience increases. It is an astounding fact that a large number of teachers still adhere to the old-time idea that instruction consists, somehow, in packing away knowledge in the learner's mind. So long as this view obtains the process of learning will be cramping and the method of teaching artificial. Unnatural methods of forcing the attention and of developing interest will have to be resorted to as a consequence. Many of the present-day text-books on pedagogy tend to perpetuate these conditions.

Not Metaphysics. It is not intended here to offer either a metaphysical or a philosophical treatise on the meaning of education. In such a work the Kantian idea of

God as man's origin, freedom as his nature, and immortality as his destiny, is a fit subject for discussion. Here, however, the interest must center chiefly in meanings less vague and ends less remote. As a rule, the teacher who is still young enough in experience to be interested in a work on methods will not be inclined to take up a metaphysical discussion.

Some Ends Less Remote. What, then, it is asked again, might well be in the teacher's consciousness as regards the attainments to become actualized in the pupil by the time the latter is fully matured? As a sort of guide to this entire treatise, and as a possible incentive to the teacher to look beyond the mere lesson, we might consider the following as some of the characteristics of the relatively mature, educated person: (1) He is devoted to and able to sustain himself in some honorable vocation. (2) He knows in outline the history of the race and of the great human institutions. (3) He possesses a wide and sympathetic knowledge of human nature. (4) He is able to reflect seriously upon the great questions of the times and to form independent judgment thereon. (5) He has the power of mental growth and of readjustment to an everchanging environment. (6) He is able to appreciate æsthetically commonplace objects and commonplace situations.

A Vocation. The bread-and-butter question is placed first. It seems fair to say that every young person ought to be prepared by education and training to make his own way in the world. Let this rule apply to youth of both

sexes and even to those who have a prospect of a large inheritance; for although the latter may never know the meaning of poverty they cannot deal justly with the world and with themselves without having had some first-hand acquaintance with productive labor.

There are some, even among teachers, who are disposed to bemean manual labor and to insinuate as an incentive to studiousness that a good education is a means of escape from hard work. Such sentiments inculcated for any length of time will certainly tend to entice pupils into the pathway of dishonesty. The boy who is led to regard education merely as a means of avoiding hard work and responsibility will soon be devising schemes for avoiding also the labor of learning. He will be a dreamer and a schemer, one who is always looking for a short cut to success and to fortune. Would it not be better to urge the sentiment that all honest, faithful work is honorable, and that an increase in learning means an increase of capacity for hard work and for efficient service? Such sentiment as this is most potent as an incentive to study, if rightly presented, and it lies at the very basis of all that is good and substantial in modern character and modern society.

Race History. The ordinary educated person cannot expect to retain the finer details of history, but he must have gone over such details in a general course of study and reading so that he may have in mind an outline of the world's history and be better able thereby to interpret current events. The common conception of the human race is too narrow. There is still too much inclination to believe

that this or that race or class of people has been favored by Divine Providence to the hurt of another. Hence arise prejudices and caste distinctions instead of an increasing tendency toward race unity—a thing more to be desired.

In the chapter on teaching history I shall try to make this matter clearer and to bring out a new interpretation of patriotism.

Human-Nature Study. In this volume there will be an attempt to show in detail how the growing mind may enter into closer relationship with other minds. Why are men everywhere so ready to trample upon the rights and feelings of other men? Are not selfishness and superciliousness, and the like, merely other names for ignorance? Look about you and observe how utterly incapable many well-meaning people are of seeing things from the point of view of their neighbors, rivals, or competitors, and you will admit that there is some justification for urging a closer study of human nature. He who lacks a sympathetic insight into the motives and purposes of others is not half acquainted with himself.

Current Events Interpreted. The world's history is being wrought out every day, but comparatively few are they who observe and interpret it in the making. Why is it that so many persons—especially school-teachers—are accustomed to attach little or no significance to events until they are recorded in some text-book on history? The author was led to infer, when a student of this subject in the district school, that the world's history came to an ignominious end shortly after the close of the Civil

War in the United States. Such teaching as is here implied gives the mind a wrong attitude toward current events and renders it habitually closed to their meaning.*

Power of Growth. The mind has a tendency to shrivel up and stop growing as soon as the period of formal instruction is past. This also may be due to a wrong method of teaching. If the method was one of cramming —one of storing up in the mind or memory a lot of hard-and-fast facts—then the student certainly went out from the school with the thought that his education was finished, and his mind therefore became gradually closed to new ideas. The power of mental growth was never really acquired. Nothing but a relatively fixed, narrow routine of thinking can ever be possible to such a mind.

Let us merely ask a question here and try to answer it later: What habits of learning and thinking can be instilled during the school period to the end that the mind may remain fresh and young and responsive to new environments, even to the close of a long life?

Appreciating the Commonplace. The thoughtful student of human affairs will notice a growing disposition, especially on the part of our recently created leisure classes, to become restless and discontented in the presence of commonplace situations and to proceed ever more actively in the direct pursuit of happiness. The pessimist would interpret this inordinate seeking after sensuous pleasure as foreshadowing the degeneracy of the race. While such pessimism is not justifiable, the condition of mind just described

* See the chapter on history for a fuller treatment of this subject.

is a menace to a wholesome state of society; therefore, the thoughtful teacher will seek the development of poise and stability in the growing character as well as of strenuousness and a certain amount of healthy discontent. Finally let the teacher consider how the young mind may be so schooled as to be able to see "sermons in stones, books in running brooks, and good in everything."

The Child's Society. The discussion of the first question, as regards the child's future, has been somewhat lengthy. Less space will be given the second one, viz., what sort of member of juvenile society do you desire the child to be as he proceeds on his way to his ultimate goal? We are all prone to project life too far into the future and to underestimate the living present. The question concerning the boy should not be, What sort of man is he to become? any more than, What is he to do and be while he is growing to maturity? Every day of his life the child is a very active member of a real society. He is constantly making some one else glad or sad, or otherwise stirring up the feelings of others by his conduct.

It is a mistake to expect children to mature rapidly and a still greater one to push them. They must pass through the various stages of growth slowly and completely and make no skips or leaps into maturity. What is more to be desired is a gradual process of refining during which there may be a steady growth into higher rationality, morality and spirituality. This can be possible only through wide and varied experience of trial and error. It must be insisted upon by those who have oversight of the child that he have

a reasonable amount of the experience that is trying and bad *per se,* in order that in the end he may have a "completely fashioned will."

The sort of member of society the child is to be during the several school periods of his growth will be indicated both directly and indirectly and in considerable detail throughout the pages of this book.

REFERENCES

The references will be classified in three groups. Group I will give such as have direct, explicit bearing upon the subject-matter of the chapter; group II will give those that are more general; group III will refer to readings that are slightly more advanced and, as a rule, somewhat philosophical in their manner of treatment.

I

1 BUTLER: *The Meaning of Education* (Macmillan); Lecture I, on the same topic as the book title. A clear statement.

2 DEWEY: *The School and Society* (McClure, Phillips); Ch. II, "The School and the Life of the Child." Very helpful. Read the book through.

II

1 ROARK: *Psychology in Education* (American Book Co.); Introduction.

2 BAGLEY: *The Educative Process* (Macmillan); Ch. II, "The Function of the School."

III

1 HENDERSON: *Education and the Larger Life* (Houghton, Mifflin); Ch. I, "The Point of View." A good statement of the social-ethical point of view.

2 LADD: *The Higher Education* (Scribner's); Ch. IV, "A Modern Liberal Education." A very valuable philosophical treatment of the subject.

3 KEITH: *Elementary Education* (Scott, Foresman); Ch. II, "The Aim of Education." Comprehensive.

CHAPTER II

THE FIRST LESSONS

Inventory. Having made a rough sketch of some of the points that characterize the well-schooled, well-matured person, let us now take inventory of the stock of learning possessed by the ordinary child just before entering school, and note, if possible, some of the means whereby he has acquired this knowledge. The teacher who hopes to attain a rational pedagogic insight must make the child his chief text-book. Study the little child and note not only what he knows and can do, but also and especially how he comes by this knowledge. Sit at his feet. Learn from him, understand how he gradually builds up a world out of his experiences, and the work of teaching him will become transformed from drudgery into a labor of love and delight.

No Innate Ideas. According to the best evidences obtainable, the human infant comes into the world without a single idea of the meaning of anything. Anatomical evidence reveals a nervous mechanism fairly well organized, but with many of the connections either wanting or only slightly developed. The different parts of the brain seem to be present in the embryo, but they lack individuality. For instance, the convolutions are observable, but they are almost entirely without depth and that definite form which

characterizes the brain of the mature, intelligent man. The casual observer, however, can easily perceive one thing with reference to the new-born child, namely, that he is sensitive to a certain mild degree. There is a wax in his ears to deaden the impact of the sound waves there and the retinæ seem to respond somewhat feebly to the stimulations of light. There is evidence, too, of a rather low degree of sensitiveness to simple stimulations such, for example, as a pin thrust in the flesh.

Simple Instincts. The nervous organism of the new-born infant seems to be such, then, as to make him mildly sensitive to contacts with the world without, and he begins at once to make some rather indefinite responses to these outer stimuli.* These responses are of three kinds: instinctive, reflex, and impulsive.

Now, the infant has at least two instincts that are of the greatest importance to him. He can cry out appealingly and thus strike a tender and responsive chord in the heart of his natural mother; and he is capable of that drawing-in process essential for nursing. The most important events of the first fortnight of his existence are continuous slumbers broken only at frequent intervals for taking nourishment. This simple mode of life means much to him, for during this time the tissues of the body are being built up—among others the nervous ones—and he is getting ready for a fuller degree of sensitiveness to the outer world of facts and a more pronounced response to them. During these early

* By outer stimulus is meant anything that stirs up or makes responsive a child's nerves.

days of bodily nourishment, the nervous system of the child is gradually getting into a better condition for action. To illustrate, the waxy substance is gradually removed from the ear so that impressions may reach him through that sense organ. The eye structure seems to undergo certain slight rearrangements resulting in greater sensitiveness to light. The outer nerve termini also doubtless take on gradual transformations—the nerves of touch, for example, being for a while very weak in their responses. The little nervous system is thus made readier and stronger for its work. The result is not unlike that of strengthening the electrical current in a telephone by improving the nature of the transmitting medium, or by making a better connection, as we say.

Self-Activity. The center of life for the infant is the stomach. Reflex acts look after the digestive, assimilative, and excretive processes. But while his condition is ranging all the way from the hunger of an empty stomach to the satiety of a full one, he experiences a considerable variety of feelings. When his hunger is satisfied, if not asleep this little child feels exceedingly well, and he manifests his condition by a series of impulsive acts—cooing, kicking, writhing, and the like. These movements are undirected but pleasurable, as they relieve a sort of pent-up condition of the nerves. Again, the child is hungry, and a different series of acts results—crying and the accompanying contortions. More or less pain is now present, for the nerves are affected differently. Two important facts are to be noted here: (1) These impulsive movements are outforcings of the child's mere animal nature. (2) These acts

form the basis of his knowledge-getting. The general problem of education is to make them definite.

Further Meaning of Impulses. It is very important that the reader get the point of view intended here, so at the risk of its becoming tedious, the discussion will be somewhat lengthened. To repeat, then, *the child's earliest knowledge must all develop out of his impulses;* that is, out of the undirected self-activity referred to above. This self-activity must be present in considerable force and variety if the education is to go on satisfactorily.

Now, it is not difficult to observe that the nature and amount of these impulsive movements are relative to the degree of bodily comfort or discomfort. There is common to many teachers and more mothers, a mistaken opinion that makes them over-anxious about the bodily comfort of children. At the least indication of the child's hunger or other want they try to furnish at once the means of a speedy relief. You may take a kitten and keep him stuffed full of fresh milk and he will grow fat and glossy, but he will also be sluggish and will not learn the tricks of kitten play so readily as the one fed at less frequent intervals. The kitten plays best—and hence learns most—and the caged bird sings best, after a hearty meal has been pretty well digested. That is, the bodily condition is then such as to force out the maximum amount of characteristic activity. In this respect human nature is not much unlike the lower animal nature. Take, for example, the case of a creeping child ten months old, and follow him through a cycle of his activity. He is given a hearty meal and

becomes stupid and perhaps sleepy for an hour. Gradually, as the nourishment passes from his stomach in the act of assimilation, he becomes wider and wider awake and more active in his play. Little movements executed indifferently, if at all, during the sluggish period are now performed with much greater force. It would be a serious mistake to give the child another hearty meal just here, and make him again stupid, for the cycle of experiences is not complete. Let him go on till the point of actual hunger is reached and observe the growing intensity of his movements. Observe a sort of fierceness in his conduct as the hungry child struggles with his little entanglements, as he slings objects away from him and puts out across the floor on all fours, screaming for another meal. He is living *intensely,* and acquiring those valuable lessons of experience that come only from bodily conditions that are more or less painful.

The School of Adversity. The people of this modern age with its easy methods and labor-saving devices are prone to lose sight of the great value of the lessons of want and deprivation. "Sweet are the uses of adversity." In the biography of every great soul there is a chapter which says in substance, "During his early years he had a hard struggle with adverse conditions, and thus learned the lessons of self-reliance and achievement." The deleterious effects of the misplaced solicitude of parents who pamper their children are here brought to mind. Wealthy parents who have ample means of supplying every childish want, as a rule simply cannot refuse the many little requests

of their boys and girls. "My child shall never be in want of anything while he is growing up," is too often the motto, and the result naturally is a spoiled, perverted nature that in the end is active only in sensuous self-indulgence.

The Beginnings of Habit. As the undirected, impulsive movements continue, it is, of course, true that the infant gradually learns to direct them. His kickings and strikings are not long merely "in the air." In time he succeeds in putting his little hand into some definite position —a purposive act—as in closing it to grasp some object. Now give him a rattle and shake the hand containing the toy back and forth a few times. He soon learns to do this simple act unaided, and perhaps to do it in a certain, fixed manner. A habit is being formed by slow degrees. Again, observe the creeping child of ten months, say, as he climbs up and down the porch steps. His way of getting up and down may be very awkward and by no means the best, but he tends to continue performing the movement in pretty much the same manner—habit again. Now, here is the point where the teacher comes into service; but mark you, not to give knowledge—a function erroneously attributed to the teacher—but to direct the learner in acquiring knowledge. By means of a little directing the child's poor manner of doing a thing is gradually changed into a better one. As a rule, all his little errors are good and necessary as matters of experience, but they must not be permitted to go on till they become fixed habits.

The task urged upon the teacher just here is that the many little acts of the child, which are tending at all

times toward fixed habits, must be observed closely and gradually turned into more desirable forms. It is often advisable to throw the child overboard, so to speak—that is, to place him in a new and trying situation and let him work his way out unaided. There is always danger of too much and too hasty directing of his efforts.

The Problem. The last statement above needs emphasis. It may be that the child is trying to thrust a stick between the rounds of a chair, or to build a block house, or to add a small column of figures. In every case, *give him time.* Let him work out his own problem. To assist too much here is to make him dependent, and weak in initiative. The learner's little problems are real and serious to him. He is trying his best to accomplish some small purpose. It is an error to say the child first attends school and *then* enters upon life. From the point of view of the seriousness of his experience, there will be no particular distinction between the school and society at large. There are problems and answers and successes and failures along the entire course for him. It need not annoy the thoughtful teacher, then, if the child fails to work out the problem in a so-called correct manner. He is arriving at a result that is his own and for that reason very valuable to him, even though some would call it error or failure. Then, incline rather to assist the young pupil to find his task or problem than to help him to accomplish it. Much of the actual necessary assistance may be given without his being aware of the fact.

The Beginner. At the time of his first entering

school, what do we find to be the mental condition of the normal, healthy child who has not attended the kindergarten? His knowledge consists of a mass of unrelated fragments picked up incidentally in the home and about the streets or in the fields. It must be observed that the child's special senses are at this time very imperfectly developed and that his coördinations are very poor. That is, he cannot execute his physical movements in a manner that is at all definite or accurate. A common fault of the young teacher is the failure to recognize the fact that *the education of the child at this early state must go on almost wholly through the development of the special senses, and that this development must be accomplished chiefly by means of physical acts made more and more definite through trial and error.*

As a result of the physical acts just mentioned there are gradually set up numerous structures and connections in the central nervous system, and these new forms tend to become permanent and to make conduct habitual and unconscious. Pause for a short time and think over a list of the many simple acts or movements that you execute almost unconsciously during the day, and then recall the fact that the little child not only has to learn to do all these things, but also, probably, is yet without the nerve structures that make them possible.

The Central Nervous System. It being realized that in the process of his sense-training the child is really building up and differentiating a system of nerves, let us observe a little more closely the details of the process. It is gen-

erally believed now that every new sense impression that the child receives actually changes the cellular structure of his nerves. If, when the mechanical apparatus is properly arranged, you pronounce distinctly before the recorder of a phonograph the word "elephant," the cylinder upon which the needle rests will receive a definite impression and later give back the exact word. This mechanical device represents fairly well the nature of the nervous system. It is plastic and impressionable and retentive. You pronounce for the child for the first time the word "elephant," and his brain cells receive and retain the impression—a verbal memory. You now point out to him the living elephant and this time through the medium of the optic nerves his brain records a different impression—a visual memory.

The other sense impressions are received similarly. Every kind of contact of objects with the nerves is carried over the proper neural tract to the brain and there stored up for future use in forms of cellular arrangement. But in order that the learning process may go on properly, one thing must be constantly observed by the teacher. On the side of the learner, the contacts of the sense organ with the outer world must be first-hand and direct. You cannot see, hear, taste, or smell *for* another and then tell him about it satisfactorily. Suppose you try the experiment of merely telling a child unfamiliar with these matters how satin feels to the fingers, or how olives taste, or how heliotrope smells. Such a method of instruction would be utterly futile even

with mature persons who are lacking in the foregoing sense experiences.

Reaction. But when we say that the nervous system of the learner merely receives impressions as does inert matter, we are relating only half the story. The child always tends to react in some way upon receiving such sensuous impressions. The mere infant's reactions are impulsive and undefined as indicated above. But the further the child advances the more definitely he can react.

Let us be clear as to what is meant by a reaction. The nourishment taken by the infant, in being assimilated, touches his nervous system through and through, resulting in his kicking and wriggling—pleasurable, impulsive reaction. His little stomach becomes entirely empty and he begins to cry and to work his mouth as if to nurse—reflex and instinctive reaction. I toss a ball to a five-year-old boy and say, "Throw it to me." He does so—a complex, purposive reaction. This last act not only is complex but also has a long-drawn-out history, a long series of simpler acts preceding and preparing for it. The meaning of the sound of my voice, of the sight of the ball, of the feeling of the ball in contact with the hand, of the feelings in the boy's arm and body while the ball is being thrown—all these have been acquired only after much experience through trial and error, and they now enter into this complex act.

Let it be carefully noted here that when, for example, the child first attempts either to throw a ball or to pronounce a word, the impression made on his brain cells becomes a

memory image and that it aids the next effort more or less. You give him a pencil and ask him to draw a straight line. Only after much trial and error he succeeds fairly well. Each stroke, as it approaches more nearly the correct one, leaves a more nearly perfect memory impression of just what must go into this act of line-drawing.

Brain-Building. No less an authority than President G. Stanley Hall brings out "the unmistakable evidence that muscle development and brain development go on together." This means that while the child exercises his arm in throwing a ball, concomitantly he constructs or multiplies the nerve cells in a definite portion of his brain; and while the vocal organs are being exercised in speaking or singing, a corresponding brain center is being exercised and furnished with what is probably a more refined and more highly differentiated cellular tissue.

The teacher should by all means consult some standard work on psychology such as James's, and observe carefully the illustrations of these localizations of functions. Every physical act has its own brain center. For example, the center of sight is in the occipital lobes and that for movements of the right hand and arm in the left upper convolutions, and so on.

The School of Experience. In the light of this kind of explanation the old idea that the mind is a storehouse of knowledge takes on an entirely new interpretation. It means that throughout the entire nervous system, and most particularly in the brain, there are made up manifold structures and connections every one of which may enter into or

make possible or modify some future mode of conduct. This explanation also suggests the particular nature of each separate act of the mind and body. Then, experience may or may not be a dear school, but it is certainly the only school wherein the young may learn. Breadth of learning means corresponding manifoldness of experience, and the converse is true also.

There are implied here two reasons why the child's early education should range over the widest possible limits: (1) He thereby develops a full variety of nerve structures and connections, thus making possible the greatest facility of adjustment to the complex environment of mature life. Let us not become lost here in a maze of abstract words. To illustrate concretely, I mean just this: The boy who, when a child, has the experience of "speaking a piece" a few times before an audience will thereby secure the beginnings of the nerve structures that will underlie and make possible some form of public speaking in future years. (2) Every child that is rightly developed continues for some years on a voyage of self-discovery. This wide range of childhood experience increases the likelihood of his coming upon his highest aptitude, the kind of work for which nature has fitted him best and in which he may, therefore, achieve the greatest results.

What a pathetic and yet what a common experience it is to meet a man who has gone blundering on to his old age, and that possibly only because his childhood life was kept within too narrow limits!

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CHAPTER III

THE MEANING OF ERROR IN EDUCATION

Every Error Recorded. It is evident that the nervous system, especially the brain, knows no such thing as error. That is, every so-called mistake in conduct is recorded just as faithfully as are the acts which are regarded as righteous. A child may mispronounce a word, or when older he may smoke his first cigarette. The nerves write these acts down as bits of experience and the impressions made tend to remain, ready for use in making out future conduct and in modifying future thinking.

Errors or mistakes, then, are just as valuable as correct acts from the standpoint of enriching experience, and they are also desirable to the furthest possible extent to which they may be overcome and prevented from becoming a fixed mode of conduct. The character that has not known by much experience the meaning of reverses and failures which have been finally overcome is not fully prepared for complete living.

A False View. A visit to the ordinary grade schoolroom will in many instances convince the close observer that the teacher has very little use or respect for error. The latter probably is observed endeavoring to conceal the fact that his pupils make any mistakes. Indeed, there is a

sentiment not uncommon among teachers that to make the most creditable showing before visitors the pupils must go through their recitations without a break or hesitation. In order to secure a "perfect" recitation on such an occasion, the teacher will often ask easy or leading questions, or take the class over some work prepared especially for the deception of visitors.

But error ought to have a more respectable standing in the schoolroom than merely to be despised and rejected. It certainly does have a valid place in the educational process, but until this fact is realized by the teacher he will be working more or less in the dark. The child that never makes a mistake (if such thing be conceivable) is a monster incapable of learning. In accordance with the theory that the mistakes made by pupils ought to be and can be turned to good account, we shall consider a few statements with regard to the educational meaning of error. What teachers need to learn more perfectly is how to make proper use of the errors of their pupils. It is not worth while to try to cover up or obviate these mistakes, or to say they do not count. While it may not be worth so much, error is just as much a step in the process of learning as truth is, and to deny it such a place is fatal to the process.

In logical processes it is often better to determine what a thing is not, before discovering what it is. One of the two possible consequences is shown to be false in order that the other may be proved true; or a false premise or statement is assumed as true in order to show the contradictions into which such assumptions will lead. Although

this method belongs perhaps more particularly to logic and geometry, it has many an application in disguised form in all the grades of school work. Rather than simply declare a pupil's opinion or the answer he gives wrong, his conclusion should be taken as the basis of further deductions on his own part until he sees for himself where the process will lead to.

In Æsthetics and Ethics. In æsthetical interpretation error has at least one important function. Whether the learner be developing an idea of the beautiful in things, in thought, or in conduct, the erroneous or the homely or the ugly will serve antithetically in disciplining the mind. Of course, it is the business of instruction to see that these undesirable antitheses are used somewhat sparingly, so that the learner's mind may not become imbued with them and the understanding of the higher forms thus hindered. A low and depraved æsthetic taste, when once acquired, is perhaps never fully eradicated.

As an ethical discipline, error needs to be treated with the utmost care and conscientiousness. Wrongdoing seems to possess a great fascination for the young. The child's standards of right and wrong in early years are acquired largely through dogmatic instruction from his elders and consequently they are not his personal standards, and from his own point of view they have no validity. It seems necessary, therefore, that the child have some kind of influence exerted over him until he becomes conscious of the meaning of right and wrong in conduct. But the ethical problem, so far as formal instruction is concerned,

naturally becomes one of psychology. Ethical conduct is not so much the outgrowth of mature reflection on the subject of right and wrong as it is the result of practice of right-doing. Some of the more general psychologic questions as regards error, are: What can be done with it? How is it related to the self in the purposive progress that is being made? How can the most serious errors in general conduct be avoided? We shall now consider this last question briefly.

Result of Bad Suggestion. It is apparent that erroneous ways of performing tasks, and also many of the common forms of bad conduct, are often the result of unintentional bad suggestion. That is to say, the teacher or the parent makes so much of the objectionable act in warning against error, and so little of the desirable act in pointing out the better way, that the former becomes the more personal point of view to the child. The teacher says in substance, "Here is the pitfall. Examine it carefully so as to know how to avoid it." What happens then? Instead of forming a resolution to avoid error as the teacher expects him to do, the child, being deeply absorbed in the subject, is unintentionally taken through a mental drill in the performance of the error. For example, a teacher once gave definite instruction in cigarette-smoking by compelling a boy who had been caught in the act of smoking, to roll, light and smoke a cigarette in the presence of a roomful of other pupils, in order to punish him and to teach the others the evil of the practice.

What ought to be done in such cases is to picture the

bright side of the conduct more vividly than the dark. One of the great factors in education is imitation. The child naturally follows that course which is presented to him most vividly. The methods of the old-time teacher in depicting so eloquently and minutely the sinner and his sins may have frightened the wrongdoer out of his wits temporarily, but the general result, no doubt, was to deepen in the minds of his hearers the inclination to sin. Whether in church or in school, the effects of such methods are ever the same, and directly opposite to those intended. While the child does, or ought to, find and solve his own problem, it is advised that there be a good deal of direction and supervision. He ought to be guided somewhat in the habituation of avoiding and overcoming error. A fixed mode of reacting in many of the more common situations is what is desired here, for thereby the child learns to achieve, to succeed rather than to fail.

Emotional Value. One of the chief bearings of error on education is found in its emotional meaning. The child that learns must become sensitive on the subject of his mistakes. It is not putting it strongly enough merely to say that he must become conscious of them. This sensitiveness ought to remain throughout the entire period of his instruction, but of course it can be too intense. Let us try to make this matter a little more concrete. A pupil comes up at the recitation period without having sufficiently prepared his lesson, and fails. If properly sensitive, he experiences a pretty deep emotion of shame and embarrassment in some form. The blood flows more warmly and the heart

beats faster. In this way he is thoroughly punished for his short-comings. As a consequence of this emotion, his thought processes are quickened and a determination to make amends for the error by more thorough work in the future is likely to follow. As the child grows older the period of reflection following emotion becomes more valuable. He soon learns to imagine himself in the act of overcoming past errors. In other words, he is acquiring valuable experience in the formation of ideals.

Baldwin, in his "Development and Evolution," speaks of embarrassment under the general term of "social sensitiveness," or "sense of other selves." If this sensitiveness be preserved in form of habit, the individual gets the unquestioned benefit of emotional response. Emotionalism is a valuable aid to somewhat mature persons; e. g., the young man beginning business. His blunders may be multiplied at first; but, being so keenly alive to the situation, he is soon enabled to bring about a better adjustment and a higher measure of success. An overthrow for such a young man is only a temporary affair. He is certain to turn this defeat into so much capital for a future investment.

It has already been indicated that error has meaning for volition. There is real enjoyment in doing what one wills to do and in overcoming opposition and error. Every one takes a sort of domineering interest in that which is inferior to himself. The child is seen to toy with error. Recently the author was talking with a little three-year-old boy who was perfectly familiar with both the dandelion and the clover blossoms at his feet, when the child exclaimed,

"Look out! Don't step on my dandi-clover!" So children often misspell and mispronounce words and imitate many other forms of error in a pure spirit of levity. The educational value of this kind of practice is not to be ignored.

In Volition. But in its more serious aspects, error is seen to have a still higher value for volitional development. In the very act of overcoming, there is a seeming accumulation of nerve and volitional energy. The consciousness of mastery is as pleasurable as the habit of mastery is strengthening. The pupil will show a tendency to profit by the errors seen in his inferiors and to be weakened by the bad examples of his superiors; but, if his education is in ideal course of development, his own errors will not merely become of use in the solution of succeeding problems; they will contribute to his permanent strength of character—

> For men may rise on stepping-stones
> Of their dead selves to higher things.

Function of the Teacher. Thus we see that error has a very significant place in the course of instruction. But let us add a word with reference to the specific function of the teacher in all this process. The teacher should actually aid the child in becoming aware of his errors. The consciousness of his own error is often more important to the child than is the answer to his problem. While the process is primarily one of finding out the truth, it is perhaps secondarily one of becoming conscious of the errors made in the course of the operation. We see too many instances of unconscious blundering through the course of

study. In answer to the question as to how the teacher is to aid directly in this process, it might be suggested that the Socratic method is the best general rule of procedure. Let the pupil answer as he will. Then, base the next question on his answer, and so on with the next until some satisfactory conclusion is reached. Thus the child is led not merely to work out his own problem but to discover many a minor truth along the way; and, most important of all, he knows from actual experience *how* the conclusion is obtained.

Now, compare in results the living method just outlined with the one still used ignorantly by many teachers, namely, the method that admits of only one correct answer to every question, and in case of any deviation from this strict requirement submits the question to the next pupil, who is expected to give the one correct answer, and in so doing to cast unfavorable reflections upon the scholarship of the first one. The new, living method makes due allowance for spontaneity and the development of a strong initiative on the part of the learner, and for his final recognition of the world as a mechanism. The old, cramping method leads the pupil to regard knowledge as a body of isolated facts, and himself as being to a large extent a creature of fate.

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CHAPTER IV

PREPARATION OF THE TEACHER

Present Conditions. If time and the remuneration for teaching would warrant it, an ideal course for the common-school teacher might well include instruction in (1) the common grades, (2) manual training, (3) high school, (4) college, (5) normal school. These would be taken in the order named. But under present conditions so extensive a course of preparation for common-school teachers is out of the question. Salaries are too low and the tenure of office too brief.* Doubtless a statistical inquiry would show that a large majority of such instructors in the United States have advanced little beyond the common-school course. It is encouraging to note, however, that both teachers' wages and the standard of requirement for certification are gradually being raised.

A Practical Problem. Common-school teaching in the United States has become almost exclusively the business of women. This is both natural and desirable. The peculiar mental endowments of woman are such as to render her more affectionate, patient, and forbearing in instructing the young. No man ought ever to apply for a position as teacher in the primary grades. But there is a serious prob-

*See the preface to this book.

lem here. Every normal, healthy young woman desires instinctively to marry and become the mother of children. Modern requirements as to age and scholarship will admit of her beginning the work of teaching little younger than twenty years of age. She is also at this age eligible for marriage. What, now, is she to do? Her private decision doubtless is, marry if she can, but teach if she must.

If one will look over an audience of women teachers almost anywhere west of New England and outside of our large cities, he will easily observe a great preponderance of girls and comparatively young women. The majority of these will marry and quit the profession within a very few years. The author addressed a teachers' institute numbering more than one hundred at times exactly two years apart. Only a score of those present on the second occasion had been members of the institute two years previously. So, it might be said, we have the strange anomaly of a vast and important business being carried on by a class of persons who are really preparing for another vocation which, if anything, is more important. Nevertheless, it can be shown that our American schools are, as a rule, exceedingly well taught and that there is in them more room for spontaneity and the bringing out of native resources than there is in the schools of older countries where there is so much close organization.

A Weak Spot. One of the most lamentable shortcomings of public-school teachers is the lack of interest in current events. The narrow-mindedness that sometimes results from this lack is pathetic. Gradually the train of

ideas becomes unalterably fixed upon the little routine of schoolroom affairs, until the mentally impoverished victim can talk of nothing else, even during vacation. In such cases, relief can be obtained only by vigorous measures. Here is a prescription: (1) Let the teacher force himself daily for a half-hour—or more, if possible—to the perusal of a good daily paper. This practice, strange to say, may be uninteresting at first, but in time any ordinary teacher will feel it to be a necessity. One who reads his daily paper regularly develops a craving for it analogous to that for daily food. (2) Subscribe for and read carefully a first-class monthly magazine—one that contains a variety of matter, but particularly able discussions of the great world-movements.

The author is desirous of emphasizing this matter even to the point of repetition. When one observes hundreds of teachers poring over their professional magazines for subjects that are already too much on their minds, or running off somewhere to take a review course in these same branches of study, he feels like calling an emphatic halt, and saying to all such: Stop this procedure at once and take a course leading to an acquaintance with current matters! Your progress as a teacher is doomed unless by this kind of course you can come into touch with the living, vitalizing world of affairs. The subjects you are teaching will by this means become quickened into new meaning and new life. Boards of education and examining committees everywhere are too prone to lead teachers into the narrow ruts herein described, by their methods of con-

ducting examinations. Why cannot there be less testing of the memory concerning dead facts and more testing of the teacher's understanding of fundamental principles and his power to interpret living truths?

Too Much Review. A middle-aged district-school teacher boasts that for twelve years he has not missed attending the annual four-weeks' session of the teachers' institute. This teacher is faithful and honest and almost too good and innocent. He also carries a certificate showing grades of ninety per cent or above in all branches. But there is something the matter with him and his case is serious. He is a cyclopædia of information and a zero on interpretation. He has reviewed himself to death. After attending three institutes he ought to have set out on a vigorous course of more advanced study either in vacation school or out. It may seem a radical view, but the author believes that the teacher who attends more than three successive teachers' institutes is already showing evidences of mental deterioration. Do not misunderstand me. The instruction in the average institute is good of the kind. By all means let the teacher attend two or three of them, and then go higher.

The Source of Power. The secret of power and efficiency in understanding and teaching lies in the pursuit of subjects of a higher nature and often only remotely related to the branches to be taught. Would you prepare to teach United States history well? Then after reviewing the subject once or twice, take a full course of reading in general history and in current events, as advised above, and in

civics. Such a course of preparation is worth ten times the same amount of time devoted to the study of various texts in United States history. Would you become proficient in arithmetic? Then study with it the principles of algebra and geometry and get into the closest possible relations with business affairs. Would you become master of English grammar? Then take an extended course in Latin and, if possible, in another foreign language or two. So with the other subjects. Study all around them and beyond them if you would know them and teach them well.

An Abomination. There is an abomination being practiced upon the teachers of this country which it is hoped they will in time have the courage to rise up and condemn. This is the practice of certain examining committees of notifying teachers that "In the next examination forty per cent of the questions will be based upon Dr. Goody Goody's 'Rules of Teaching.'" Very often back of this thing there is a designing scheme whereby thousands of teachers are forced to buy and study a very inferior book while they might be pursuing some studies that are really worth while. Teachers and reading-circle committees, appointed to select these prescribed (better proscribed) books usually act innocently and in good faith, but they are frequently under the shrewd management of high-salaried book lobbyists. At any rate, why cannot there be selected by these committees only such books as will be enticing and profitable reading to teachers and such as will sell on their own intrinsic merits?

Thought Germination. What shall be done to develop

more resourcefulness in ideas? A half-hour's conversation with the teacher who confines his time for study exclusively to poring over dry text-books will reveal the fact that he is weak in thought associations. Introduce almost any topic of conversation not related to his schoolroom routine and he probably will close the discussion at once with a dry, meaningless remark. What is the matter? The topic is too strange and foreign to him.

Now the able instructor must be spontaneous and resourceful in ideas, as well as in words to express them. He must read not merely text-books but a little of everything, selecting carefully, of course. Novel-reading with some becomes a craze, an overmastering habit, but many teachers err on the other side. There had better be included at least a score of standard works of fiction in the young teacher's reading-course. All this may seem foreign to the subject of this chapter, but certainly it is not. If you would break away from slavish adherence to dry questions and answers in the text-books and from the more servile and cramping method of discussing lessons by means of memorized portions of the text (as many do), if you would cause the seemingly dead, inert subject-matter of the ordinary recitation to kindle into a flame of living fire, then develop and enrich your own soul by wide reading and thinking and experiencing. During the course of an average day you are likely to be called upon for a thousand ideas that through suggestion will stimulate youthful thought and activity. Woe unto you if you cannot furnish them!

A suggestive course of reading will be given at the close of the chapter.

District-School Teaching. In the author's opinion the best practice work for young teachers comes from the district school; for there the interests are so manifold and the demands upon the teacher's resources so varied that his development is both rapid and wide. One or two terms in such a position will aid one in finding both his strong points and his weak ones in teaching and will indicate to him more definitely the field of his specialty. A false estimate of their own worth and dignity leads many young, inexperienced college graduates to scorn the work of country-school teaching and to seek a more dignified beginning in some good high school. By this means much of the solid foundation for teaching is omitted. Go among the ranks of men and women of greatest power and efficiency in the schoolroom and find, if you will, that the majority of them served an apprenticeship in the rural district. So, the well-prepared teacher who acquires his first experience in the district school may seem to be losing ground for a time and the salary may be entirely incommensurate with the sum invested in the education, but in the course of a few years the loss will doubtless be more than made up, both pecuniarily and otherwise.

Good Expression. In order to carry on the work most effectively the teacher needs to cultivate assiduously his powers of oral expression. "I know it but cannot tell it," is too often the confessed weakness. Beware of cant phrases and platitudes and, above all, affectation of voice,

but use every opportunity in school and out to develop a good conversational style, one that is free from slang and cheap babble. The reticence somewhat common to young teachers may be overcome only by practice. Good language forms are acquired almost entirely by imitation of expressions read, heard, or thought out in private. So let the student of oral expression tarry much with such able authors as Irving, Lowell, and Kipling, and let him acquire the habit of framing his thoughts in full sentences. This is in reality talking to oneself mentally, a helpful exercise. In addition to these matters, the teacher must strive diligently to develop a well-modulated voice with clear, distinct articulation and forcible enunciation.

The Normal Course. It is apparent to the close observer that much good teaching material is spoiled by too early or too much normal training. The country is swarming with young teachers who go about with a big notebook of set rules for doing or teaching this or that, as if everything in the schoolroom could be done by rote. It requires years for some of these persons to get over this overdose of methodology, and there is occasionally one who never recovers. Now it is far from the intention here to depreciate the great value of normal schools, but when the study of methods of teaching is allowed to precede in importance study of the collateral branches of the common-school curriculum the deplorable condition cited above is likely to follow. To be specific, this undesirable condition seems to come about in this way: The would-be teacher puts in a year reviewing the common branches and learning

methods of teaching these branches. Now, the knowledge of these subjects is so isolated, and the thinking about them from the nature of the case so unrelated to the broader fields of thought and living, that the young teacher naturally falls into the vicious practice of cramming the memory with a mass of rules, dates, dead facts, and the like, instead of viewing the subject of study as an ever living, developing one. The "Rules for Teaching" will be memorized in pretty much the same way; whereas, they ought to be regarded as only suggestive or something to be assimilated during the course of one's actual practice in teaching.

For these reasons and others that might be given, it is strongly urged that the extensive and the intensive study of methods of teaching be not taken up until the teacher becomes well advanced in the course. A good high-school training is suggested as a fair prerequisite in the teacher, while a collegiate course would naturally be of still greater value to him. When one has had collegiate training he will have acquired some idea of the scientific method of study and investigation. To him every subject pursued must have a functional or a developing aspect rather than a merely structural one. And best and most essential of all, he will have received that flood of light and inspiration that can come to the teacher only through acquaintance with a wide range of subjects that are collateral to and higher than the special lesson that is being taught.

Then, why not make the review of the common branches either precede the model school work and the study of methods, or make this review merely incidental and give

the time to geometry, Latin, general history, and still higher branches of learning? Any teacher who is worthy of his vocation can review the common branches at home after the high school or college course and the work in theory have been completed. The theory, however, if taken comparatively late will have some meaning other than a lot of rules to be memorized.

Summer Schools. One of the greatest advantages offered to teachers to-day is that of the summer schools. Such institutions are now well distributed throughout the country. The young teacher who invests his first savings in a course at one of these thereby indicates his best professional spirit and gives promise of progress in the future. He will not be satisfied with attending a mediocre school near by, but will prefer to go to a distant one, and one of highest standing, where there is opportunity of coming into a new environment. The term's course of study, if ideal, will combine study and recreation and sight-seeing in about equal proportions. The subjects pursued will contain some work that is entirely new to the attendant and in advance of the subjects to be taught by him. No available opportunity to hear eminent speakers and lecturers will be lost. Best of all, the teacher will come back to his work in the fall with new intellectual acumen and new soul life and a new zest for his work. It is earnestly urged that superintendents and boards of education place a premium upon the attendance of first-class summer schools by teachers. A slight advance in salary and expressions of hearty

approval in published reports are suggested as very suitable rewards of merit in such instances.

A Course in Reading. And now, at the close of this chapter, there is offered a course in reading for young teachers. Inquiry into the matter has led the author to believe that there are thousands of these young beginners who are more than willing to take up a course, but who need some specific guidance in the matter. All so-called professional books are omitted from the list with the thought that such texts will be urged or forced upon the teacher's attention by the school authorities. This list is merely suggestive. There are, doubtless, many experienced teachers who have read all these books and many more of like nature. They will pardon any seeming presumption upon their ignorance.*

In reference to reading, Superintendent J. M. Greenwood, of Kansas City, Missouri, has this to say in *The Educational Review* for November, 1907: "If I have gleaned a single bit of sound educational information from an investigation of the lives of men, whether living or dead, it is that concentration of thought, intensity of investigation, thinking carefully and patiently over what one reads as he reads it, or stopping to master it and making it his own, is the only kind of reading that is of any permanent value. . . . It is not so much reading, but well chosen, solid, substantial reading, that builds up the character into manhood and womanhood. Fifty or a hundred good books

* These works may all be obtained through the publishers of this book, in any form of binding desired.

well chosen, if read and mastered and assimilated, will give one far greater power and versatility than thousands of surface, scrappy, mediocre books. The 'scatteration' theory has taken such a hold now upon many of our educational writers, that one can get, in reading most of the late books, only a rehash of what the author has gathered from various sources, and at the close of each chapter, or at the close of the volume, a bibliography that is absolutely overpowering."

A COURSE IN READING

NON-PROFESSIONAL, FOR YOUNG TEACHERS

A

1 FELIX ADLER: *Life and Destiny;* McClure, Phillips & Co., New York.
2 R. W. TRINE: *In Tune with the Infinite;* T. Y. Crowell & Co., New York.
3 HENRY WOOD: *Life More Abundant;* Lothrop, Lee, Shepherd & Co., Boston.
4 GEO. R. PECK: *The Kingdom of Light;* G. P. Putnam's Sons, New York.
5 H. W. DRESSER: *Education and the Philosophic Ideal;* G. P. Putnam's Sons, New York.

B

1 HALLECK: *Psychology and Psychic Culture;* American Book Co., Chicago.
2 KING: *Psychology of Child Development;* University of Chicago Press, Chicago.
3 BUTLER: *The Meaning of Education;* The Macmillan Co., New York.
4 HUGO: *Les Miserables;* Vol. II, Pt. II. The story of Jean Valjean; T. Y. Crowell & Co., New York.
5 JACOB RIIS: *How the Other Half Lives;* Chas. Scribner's Sons, New York.

C

1 JAMES: *Human Immortality;* Houghton, Mifflin & Co., Boston.
2 JOHN FISKE: *Life Everlasting;* Houghton, Mifflin & Co., Boston.
3 COE: *The Religion of a Mature Mind;* Fleming H. Revel & Co., New York.
4 JAMES: *The Will to Believe;* Longmans, Green & Co., New York.
5 CLARK: *Ten Great Religions;* Houghton, Mifflin & Co., Boston.

D

1 HYDE: *Practical Ethics;* Henry Holt & Co., Chicago.
2 J. P. ALTGELT: *Something for Nothing;* Hammersmark Pub. Co., Chicago.
3 L. R. BRIGGS: *School, College and Character;* Houghton, Mifflin & Co., Boston.
4 PALMER: *The Nature of Goodness;* Houghton, Mifflin & Co., Boston.
5 ROYCE: *Studies in Good and Evil;* D. Appleton & Co., New York.

E

1 RILEY: *Neighborly Poems;* Chas. Scribner's Sons, New York.
2 HELEN HUNT JACKSON: *Poems;* Roberts Brothers, Boston.
3 KIPLING: *First Jungle Book;* The Century Co., New York.
4 WALT WHITMAN: *Selections from;* by O. L. Triggs; Small, Maynard & Co., New York.
5 BROWNING: *Shorter Poems;* The Macmillan Co., New York.

F

1 CONN: *The Method of Evolution;* G. P. Putnam's Sons, New York.
2 FISKE: *Through Nature to God;* Houghton, Mifflin & Co., Boston.
3 BOSENQUET: *The Family;* The Macmillan Co., New York.
4 DARWIN: *The Origin of Species;* D. Appleton & Co., New York.
5 BALDWIN: *Development and Evolution;* The Macmillan Co., New York.

This short course in reading is intended to awaken the consciousness of the young teacher and to give him something of the habit of reflection. The chief admonition here

is to *read little and think much.* Read first all the books under A, in their order, and then take up those under B, and so on. Do not skim over the subject-matter merely to get through, but proceed slowly, reflecting upon the meanings of human life as suggested by the pages read. You will thus develop your personality and take on more and more the characteristics of the real teacher.

It is understood, of course, that this list of references is to supplement, and not to supplant, the ordinary professional and current reading of the teacher.

REFERENCES

I

1 JAMES: *Talks to Teachers* (Holt); Ch. I, "Psychology and the Teaching Art." Professor James is always instructive and entertaining.

2 WHITE. *The Art of Teaching* (American Book Co.); p. 105, "The Teacher's Preparation." This book is full of helpful suggestions for the young teacher.

II

1 KING: *Personal and Ideal Elements in Education* (University of Chicago Press); pp. 236-266, "How to Make a Rational Fight for Character."

2 PUTNAM: *A Manual of Pedagogics* (Silver-Burdett); Ch. XII, "Personality in the Teacher." Cites and describes a number of great teachers.

III

1 MCMURRY: *Method of the Recitation* (Public School Pub. Co., Bloomington, Ills.); Ch. X, "Socrates' Method of Teaching." So much is said nowadays about the "Socratic Method" that it behooves every young teacher to read such a reference as this carefully. The text is taken from Xenophon's Memorabilia.

2 SABIN: *Common Sense Didactics* (Rand, McNally); Ch. III, "The Preparation for Teaching." The young teacher should read this book through. It is intended to impart courage and inspiration for the work of the schoolroom.

CHAPTER V

PSYCHOLOGIC PRINCIPLES

The Steps in Detail. It seems absolutely necessary that the teacher become able to observe the detailed steps in the act of learning. He must go to the child himself in order to make his observations. Very recent experimentation in psychology makes the necessity of so doing more than ever apparent. Scientific tests and computations tend to show that the brain is a much more highly specialized organism than eminent educators have been inclined to believe it. Coördinated with practically every acquired mental or physical activity or aptitude there seems to be a special group of nerve cells. These nerve-cell groups are built in and rearranged, seemingly while the knowledge is being acquired.

But there is another important lesson to be learned by the student of education. Stated in homely phrase it is this: An aptitude or ability for one particular kind of act does not assist much in the performance of another. This would mean that the pupil who reads well does not necessarily spell well; or that one that is quick at perceiving foliage forms may not excel at all in distinguishing shades of difference in sounds, or that the youth who is skillful with the axe cannot make much use of this skill in learning to wield

either the pen or the scythe. There comes into the school a thirteen-year-old boy who is a champion shot with the rifle. Nevertheless he will find it necessary to acquire the art of drawing precisely as other pupils do, by means of persistent practice. A new set of nerves and muscles must be brought into use.

Higher Distinctions. There is often made the mistake of designating as unusually bright certain pupils who are quick at acquiring two or three of the ordinary schoolroom subjects, such as reading, spelling, and numbers. Now comes your dull boy, your blockhead. He stammers and stutters in trying to read and his computations in arithmetic come out at nowhere so far as exact results are concerned. But it is suggested that you test him in that wider field of "knowledge never learned of schools" and see if he does not very likely outclass the bright pupils themselves. For instance inquire of him—

> Of the wild bee's morning chase,
> Of the wild flower's time and place,
> Flight of fowl, and habitude
> Of the tenants of the wood;
> How the tortoise bears his shell,
> How the woodchuck builds his cell,
> How the oriole's nest is hung,
> How the robin feeds her young,
> Where the whitest lilies blow,
> Where the freshest berries grow.

The object here is not merely to call the attention of the teacher to the bright side of this dull pupil but to urge the former to observe how the latter comes by so much accurate information.

How Perception Goes On. It is evident that in becoming acquainted with objects both material and non-material the child's first perceptions are of single, simple wholes. It is a waste of time to point to a complex object and urge the child to see it, and worse than foolish to threaten him with punishment if he does not fix his attention upon it. Specific parts of the object must first be pointed out, one at a time, and, if possible, their relations to other parts shown. After this lesson the child will probably be able to see thus far undirected. Another way, and an excellent one, is to give him the object and let him discover some of its meanings for himself. After this he may have further meanings brought to his attention. The same detailed method would be necessary with complex sounds. The component parts simply must be heard singly and clearly before they can be recognized in the compound.

The lesson here is, after all, a very simple one, even if it is so important. It is necessary only to remember that the child is acquiring his knowledge of the world of fact bit by bit through sensuous contact with things and that as these end-organ stimulations are going on in the ears, the eyes, the nose, the mouth and the skin surfaces there is being constructed or arranged at the inner termini of the nerves affected an equal number of peculiar groupings among the four hundred millions of brain cells.

Imagination in Teaching. Now, as the child's nervous organism is very plastic, it readily retains these sense impressions and gives them back in the form of images. Imagination has been defined as the act of being aware of

things not present to the senses. To illustrate: A boy has often seen his little wagon, and he can now see it without its being present before him—a visual image. He has often heard the robin-song and can now think of the song without hearing it—an auditory image. So with taste, smell and touch images. The imagination functions in two ways: (1) It brings back faint copies of previous perceptions just as they were, the so-called reproductive imagination being thus exemplified. (2) It takes bits of past experience and puts them together in new forms or combinations. This is constructive imagination, out of the practice of which the inventive type of mind grows.

At this point there are two important matters to be observed. First, the reproductive imagination will be clear only in proportion as the original perceptions were clear. Secondly, both kinds of imagination should have comparatively free activity. It is a valuable exercise to have the child shut his eyes and "look," also for the instructor to discontinue a certain sound and have him "listen" for it; or to withdraw the object touched and have him "feel" it. There will be a time during which his imagination will be rather over active, but by bringing him back frequently to solid matter-of-fact this tendency may be corrected.

The inventive imagination must have much time and occasion for development. The modern tendency is to give the child too many ready-made and highly finished instruments of work and play, so that there is little necessity for invention. This is a serious pedagogic error, which is analogous to giving too much highly seasoned food. It is

really pathetic to see heaped up around the over-indulged child scores of expensive playthings, and the poor, pampered little creature sick of them all. Strange to say, that other little boy, born and bred in poverty and forced by circumstances to construct his own playthings out of crude, raw materials, will often outclass his more favored rival in matters of original invention and construction. Can the reader not see that the child that has merely rag bundles for dolls and ordinary corncobs for cattle and popcorn-cobs for sheep, is really acquiring not merely an active imagination but also the first steps in that important symbolism which must later support him in his higher generalizations? Then, turn the child loose among the materials and let him work out his own salvation with the aid of very little directing.

Memory. There is among teachers much misunderstanding in regard to the psychology of memory. It is therefore advised that there be made a careful study of this subject as treated by some good, standard work on psychology. James and Angell are recommended.

It must be observed first of all that the seat of memory lies somewhere in the nerves. There is retained by them some kind of impression of the things to be remembered and this impression communicates itself to consciousness under suitable conditions. People's nerves seem to vary in plasticity or impressionableness. This alone makes a difference in memories. The ideal case, it seems, would be a nerve structure that would yield to sense impressions with considerable resistance, so that it would retain them better. In a physical sense, we might say, then, that the problem of

memory is threefold: (1) To convey the impressions to the central nervous system; (2) to interpret them and retain them there; (3) to make use of them as remembered facts when they are needed.

Making Impressions. A six-year-old boy is in bed, sound asleep. I say something to him in a clear tone of voice. The sound waves doubtless strike upon the termini of his auditory nerves just as though he were wide-awake; but for some cause or other the impression never reaches the brain in such a manner as to permit of recalling. If the boy chances to be only half-awake—a somewhat common physical condition in the schoolroom—then the impression is doubtless only half-made and the memory is poor. So it seems that there must be an active, alert condition of consciousness. Furthermore, it will be admitted without argument that the consciousness must be directed to the thing to be remembered. That is, there must be an active sort of attention. The boy must be wide-awake. The old label on the bottle, "Shake before using," might, with slight variation, apply literally to him.

The Old Question of Attention. I give a hungry boy a big, red, juicy apple and then seize my pointer quickly and dance around him, gesticulating and speaking to him energetically and reminding him in indirect ways of various kinds of punishment that might be inflicted. "Why all this foolishness?" you ask. "To hold the boy's attention on the work he is undertaking," I reply. My conduct certainly would be useless, but it would not be very unlike that often seen in the school. As a matter of fact, the boy needs

simply to be let alone. There is such close affinity between him and the big red apple that his attention to the task of devouring it is perfect.

This apple story gives something of a clue to the problem of attention. The task or lesson to be undertaken must, if possible, have just such vital relationship to the boy as the red apple has. It must be his own task. His very nature must call out emphatically for the object of attention. He must be hungry for it; that is, have a personal interest in it. A natural interest will develop most satisfactorily under circumstances that favor the child's spontaneity of action. It lessens his interest to do too much *for* him. Let him do as much as possible for himself, so that he may continue to define his own experience, and the interest will be natural. Forced attention is at best divided attention.

Again, freedom of attention and resulting goodness of memory are vitally connected with general bodily well-being. The dull stupor that comes frequently to pupils in crowded schoolrooms renders clear perception and, hence, close attention and good memory impossible. The blood, not being well purified, carries poisonous matter back to the brain, whither it ought to be carrying rich, red corpuscles. Strengthen the memory, then, or at least render it more efficient, by admitting a larger supply of fresh air into the room. If the weather will at all admit of it, have every pupil pass out-of-doors during the play period and air out the room thoroughly—for the sake of the memory. Sometimes it is advisable even between intermission periods to stop everything for five minutes, throw the windows all

open, and have all the pupils march on double time around the room—merely in the interest of a quicker heart-beat, a healthier blood-circulation, *and a better memory.*

The Nerves Remember. It must be borne in mind that the nerves really do the remembering and that the impressions become fixed and permanent through repetition. Some years have passed since the author has ridden horseback, but his nerves remember the act from long repetition and he could easily ride again. The same might be true of reciting "Marco Bozzaris" or translating Vergil. A little practice would renew the old nerve impressions. The futility of trying to force the memory ought now to be more apparent. Stress and strain often seem to benumb the associative centers. It is said that all learning when complete must assume the form of habit, whereupon it manifests itself in readiness of mental or physical activity. Now, these habits will be developed best if the education is carried on in an orderly, systematic manner. One of the chief characteristics of habit is that it is regular or periodic in its times of highest activity. Then, see that the work of the school day is so mapped out that order and system may prevail throughout.

Retaining Impressions. Nothing further than what has been implied can here be said under this heading except that the general retentiveness of the memory cannot, seemingly, be improved. Its improvement would really mean a change in the natural plasticity of the nerves. Repetition, however, of each special act will make the impressions deeper and more definite and lasting in that particular case.

Recalling Impressions, the Logical Memory. Facts and experiences are recalled most easily and naturally after they have been associated with the greatest possible number of other facts and experiences. According to a widely accepted theory the memory centers in the brain are formed of a network of paths of excitation. Now, if the path made in learning fact A be crossed by the paths formed in learning a dozen similar facts, the memory of fact A is likely to call up the memory of any one of the others, and vice versa. The economic value of this logical form of memory is at once apparent. Instead of an effort to hold in remembrance by sheer force each and every separate fact, there is one to retain the central fact alone, and by means of this logical arrangement any of the others is naturally brought into recognition when desired. The central fact might be of such nature as an event in history, or a rule or principle in mathematics.

The teacher who understands that education is a developing rather than a cramming process will be somewhat slow in reducing the lessons to be mastered to fixed rules and definitions. It is the very nature of a rule or a brief definition to imply that there is nothing more to be learned or said on the subject. It tends to close the mind to discussion and further inquiry. A certain youth had learned in the language class that "An adverb is a word that answers the question 'how.'" That settled it for him for some years, during which time his mind was closed on the subject.

Thinking. All that has been said about clearness of perception, retentiveness of memory, and the like, very

naturally furnishes a substantial foundation for a mental act characteristic of fuller maturity, viz., reasoning. It is impossible to draw a line between the various important mental activities. They shade into one another. But thinking, strictly speaking, means mental effort whereby one is trying to arrive at some end or conclusion. This sort of thinking is hard work and it fatigues the organism just as physical labor does, only in different parts. It is not necessary to give a full analysis of logical reasoning here, but it is strongly urged that the teacher give pupils time to think. He can do so by assigning fewer tasks or problems and thus allowing more time for each. The exercise in reasoning can also be aided by skillful use of the Socratic method of teaching, and by the frequent practice of arranging the problems so that the pupil will have to think his way out, so to speak.

The power and the habit of sober reflection are rare qualities among men and women of to-day. Too much impatience and haste during schooldays are partly accountable for this lack. Let us mature our boys and girls a little more slowly and thereby contribute more to their stability of character and poise of intellect. We need a greater number of the reflective type of personality and more of the even but optimistic temperament.

Imitation. A very important phase of all education is imitation. This is almost exclusively the law of language-learning. Deaf children usually have perfect vocal organs, but, not being able to hear another's voice, they have no copies to imitate. The successful teacher must make a

personal study of the child's efforts at imitation. The child is always trying to make a true copy of what he sees or hears, or sees done, but his blunders are, at first, the most prominent features of his efforts. Now, why does he blunder? (1) Because his image of the object or act is a very imperfect one, since his experience at this point is but a little above zero. (2) He has not yet gained control of the muscles necessary for use in this case; neither can he inhibit the ones that interfere. The effort may be to walk across the room, to pronounce a new word, to draw a simple object, or to finger a piano keyboard. In every such case the two factors just named are prominent.

Enough has already been written in discussion of perception and imagination to give needed suggestions on the first point. The true copy, or correct image, can be secured only through the perceiving experience oft repeated. Inhibition also is the result of experience. Which muscles to use and which to keep from acting is a very complex problem for the child. It is urged that students of human nature look sharply at the child in action and notice that in trying to perform almost any little simple movement he constantly exerts too much energy or else scatters his forces, or both. Grimaces, contortions of the left hand and the toes, writhings of the body, and the like, will probably accompany simple movements that in time will be performed solely with his right hand.

Conclusion. This chapter is intended merely as a brief outline of some of the psychological principles underlying scientific method in education. It is on account of its

brevity, too abstract, but the present plan is to give the subject-matter here sketched many concrete illustrations in the discussions of the several specific branches of study, to follow. For a fuller treatment of these important psychologic subjects the reader is referred to the author's "Psychology and Higher Life," published by Crane & Co., Topeka, Kansas, and the standard texts mentioned above.

REFERENCES

I

1 ROARK: *Psychology in Education* (American Book Co.); Ch. V, "Conditions of Mental Activity." Treats chiefly of attention and habit.

2 DE GARMO: *Interest in Education* (Macmillan); Chs. X to XII. the various phases of interest.

3 KING: *Psychology of Child Development* (University of Chicago Press); Chs. XII and XIII, on theory and development of interest.

II

1 HARRIS: *Psychological Foundations of Education* (Appleton); Ch. I, "What Is Meant by Educational Psychology"; Ch. III, "What Is Self-Activity?"

2 HORNE: *The Psychologic Principles of Education* (Macmillan); Chs. VII, VIII, IX. A very good discussion of the awakening of consciousness, and of perception and apperception.

III

1 BUTLER: *The Meaning of Education* (Macmillan); lecture entitled "Is There a New Education?"

2 DEXTER AND GARLICK: *Psychology in the School Room* (Longmans, Green); "The Development and Training of the Senses."

3 THOMPSON: *Brain and Personality* (Dodd, Mead); Ch. VII, "Evolution of a Nervous System."

4 GREENWOOD: *Principles of Education Practically Applied* (Appleton); Ch. I, "Applications of Psychology to Teaching."

CHAPTER VI

THE RECITATION

Importance. The pupil is acquiring new ideas during all of his waking hours, but the recitation period is the most important one of the school day. At this time, especially, the child's conceptions are being enriched or made over into new ones. This is, therefore, the point of most vital contact between the minds of teacher and pupil. While the recitation period is taken up largely with a test of the latter, it is none the less a test of the former, and unless he can pass this ordeal successfully he is not a first-class instructor. Other defects in a teacher may be to some extent tolerated, provided he be eminently successful in conducting the recitation.

In this chapter there will be considered (1) purposes of the recitation; (2) the preparation of the teacher; (3) the preparation of the pupil; and (4) methods of the recitation.

First Purpose to Develop the Individual. Aside from the many methods and devices necessary for the work of mastering each particular lesson, the worthiest teacher is perhaps ever conscious of an aim and an effort to lead each and every pupil under his instruction from a crude state of development into a life more abundant. Given normal health, sufficient nourishment and plenty of out-door exer-

cise, the average child will enjoy life immensely without caring whether school keeps or not. But the time will come when his own happiness and well-being, as well as his usefulness to society, will depend largely upon the type of mind acquired by him during the years of his formal schooling. So, let the recitation period be devoted first to the understanding of the lesson at hand, and secondly to the implications of the lesson for future living.

To Test Knowledge. A second purpose of the recitation is that of testing knowledge. Every expression of the pupil during the course of the recitation serves to indicate the precise status of his knowledge on this particular subject. Does he express himself clearly? Does he repeat memorized data accurately and readily? Does he use rules and principles understandingly rather than mechanically? Is his effort merely in the interest of making a showing in order to secure a good grade in the classbook? Does he show by means of his sincerity and forcibleness that he has the manner and the spirit of the true student? These are some of the questions that might arise in the teacher's mind during the course of conducting recitations.

To Test Ignorance. What is there in the lesson that is not properly understood? There is likelihood of deception here. The mere fact that the pupil says that he understands the principles involved warrants no such conclusion on the instructor's part. The weak places in the former's conceptions must be found by careful, detailed inquiry and must be strengthened by the same kind of slow-going process. Many pupils try hard to conceal rather than to

overcome their ignorance because of the habit of too many teachers of making it reflect too seriously upon the child when he gives a wrong answer. Such teachers are the ones who labor under the delusion that there is just one correct or satisfactory answer to every question they ask. Theirs is the cut-and-dried method. Their pupils are afraid to make a mistake, thinking it shameful or disgraceful to do so.

For detailed method of taking advantage of the child's ignorance, see the chapter above on "The Meaning of Error in Education."

To Eradicate Backwardness. Reticence is both a desirable and a natural characteristic of the growing child or youth in the presence of his respected elders. But backwardness with reference to any particular kind of recitation or response must not be permitted to remain long or it will become a fixed habit and a menace to advancement. The backward pupil has something to overcome within himself. The tactful teacher, realizing this fact, will carefully direct the child in the beginning of the particular kind of self-mastery desired. Among other things the nerve structures corresponding to the kind of activity under consideration are doubtless weak or at least prevented from functioning by others more highly developed. The case may be one of backwardness in using the tongue, the hand, or the whole body. In any and every case practice of the specific kind of activity desired, and much of it, is the only remedy.

Conversely, the recitation must serve to check undue forwardness. There are nervous babblers even among chil-

dren. Such are inclined to speak without thinking and to ignore the rights and feelings of their associates, whom they try to crowd out. This tendency is deplorable in mature persons, but it is to be regarded as a mere defect to be overcome in the case of the young. The forward, babbling pupil is not perverse or mean. His mind is full of imaginings that seem to him as real as your matters of fact do to you. The lesson he especially needs is to follow up his thoughtless statements or acts to their faulty conclusions and compare these results with those obtained by more deliberative speaking and acting. He must learn to discriminate between fact and fantasy. Unless the defect of an over-active imagination be overcome in early years the one defective will never become acquainted with the deliberative, painstaking method of science.

To Improve Thinking. An important purpose of the recitation is, therefore, to develop the capability and habit of rational thinking. The child-mind is naturally impatient for results. It would rush ahead and make trifles suffice. How necessary, then, that the childish thinking should be understood and made more purposeful by careful attention thereto! A small boy said: "It would take ninety years to go up to the moon on the train." His statement was evidence of a healthy activity of the imagination, but his thinking might have been aided by a few questions relative to railway transportation, the tracks, and the foundations therefor.

To Develop Expression. "Be a doer, not a dreamer," is a fairly good motto, but it might be improved thus: "Be

both a dreamer and a doer." The so-called dreamer is one who has formed the habit of letting his ideas slowly perish within him unexpressed. The recitation period, to be of any great value to the pupil, must allow time for expression. He must not merely think how to spell that word, or how to utter that sentence, or how to draw that line, or how to saw that board. In every case he must exemplify his thought with an appropriate act. Such is the nature of true learning.

The negative side of this question presents a more serious aspect. Train two boys in the following manner: Let each have the same series of theoretical lessons, but see that boy A carries out every such lesson with the appropriate expression, while boy B simply learns to observe how things are done and to explain his theories. At the end of the course you will find them wide apart. The world is full of grown men who have been trained too much like boy B. They can explain glibly how a battle ought to be fought, or how a certain kind of business ought to be managed, or how a particular wrong in society can be righted, but they simply cannot achieve anything, even when given fair opportunity. They had little practice during early life in carrying out their theories, in expressing their thought by means of acts. The nerve connections that ought to have been made in early life are actually wanting, or are atrophied, and the power to achieve is lost forever.

For these reasons and others, dear teacher, be mindful of the pedagogical sin of attempting to hear too many pupils in one recitation and of hurrying over the subject-matter so

as to cover all the ground of a text-book in a given time. School superintendents who make out overcrowded courses of study are among the parties to this wrong. For the benefit especially of young, inexperienced teachers every course of study should discriminate carefully between essential principles that must be mastered and other matter that may be taken only to the extent that deliberative, expressive teaching will allow.

To Connect the School and Society. A further purpose of the recitation is by means of suggestions, questions, and matter-of-fact statements to give the child the best and fullest possible impressions as to how properly trained men and women behave in mature society. The pupil is not necessarily made too prosaic and matter-of-fact if he be constantly led to observe how grown people use this better mode of expression, or that rule of arithmetic, this familiarity with geography or that knowledge of the world's history, in furthering their legitimate material interests. Such observation, on the contrary, will add needed interest to the tasks at hand and give also a more wholesome regard for the great industrial pursuits of the country. Remember, too, that the two kinds of drones in our society—namely, the idle rich and the idle poor—are simply living examples of somebody's faulty teaching.

To Bring Out Individuality. A certain florist had fifty beautiful young moss-roses growing in one plot. Now he had in a book several illustrations of the moss-rose, showing just how it ought to look at different stages of its growth. Branches, leaves, buds, and blossom were all pic-

tured clearly. But not one of the roses under his care seemed to be exactly like the illustration. So the good florist began to cut and trim and finally forced all the young plants to conform to the one model, although his efforts resulted in much stunting and cramping.

"Foolish and artificial!" you say. "Why did not the florist permit each little rose to unfold in its own peculiar, beautiful manner, by simply furnishing good soil and water and sunshine, and pruning away only the ugly branches and trimming back only where one tended to become top-heavy or to shut out the light from others?" But, fellow teacher, are you sure that you are not this same florist and that the tender plants under your care, your pupils, are not treated as the roses were? Is there not possible, for instance, such a thing as individuality in handwriting and yet conformity to the essential rules of legibility and symmetry? May not the child in reading and reciting use certain accents and intonations that are spontaneous and peculiar and beautiful, although at variance with your book rule? May he not make certain gestures and assume some bodily attitudes in "speaking his piece" and in marching that are at once very graceful and expressive and yet not exactly conformable to rules laid down for your elocution class? One purpose of the recitation, in other words, is to bring out the individuality of the pupil. We are attracted to a person the more if among his little modes of response there are some that are peculiar to him yet agreeable to us. Not a dull monotony but an interesting variety of speech and action is what we desire in our friends. And so may

the teacher during the course of the recitation watch for and encourage the budding of each peculiar little form of genius.

Preparation of the Teacher. A chapter has already been devoted to the general preparation of the teacher for his calling; so the brief discussion here will have reference to the recitation only.

Reviewing. The successful teacher's preparation for conducting classwork dates back to his childhood. Every little experience of his past life is liable at some time to be brought into service for purposes of illustration and amplification. Readiness in the use of his personal every-day experience to aid his pupils in defining their own constitutes a large portion of the aptitude of the "natural-born teacher." It is foolish to say that the teacher must review every lesson carefully shortly before the hour of the recitation. The district teacher simply cannot do this thing, for want of time. Many review the lesson texts entirely too much, so that there is no time remaining for outside reading and reflection. Such practice is very narrowing, as nothing new is thereby brought into the mind of the teacher or into the pupils' minds during the recitation. Of course, the instructor must have once mastered the subject-matter of the text. After that a hasty glance into the book is often sufficient.

Outside Reading. The teacher's reading in related subjects is very important. As an aid to teaching reading and history of the United States let him take up the standard myths and fables and the many classic true stories of ancient times; also historical and biographical treatises re-

lating to our country, including a brief history of American literature. In order to freshen his mind in the other common branches he may consult other texts than the adopted ones. Some of the branches in the course do not naturally interest the instructor; he will, therefore, tend to slight them. But his interest in them will develop somewhat if he can bring to the class certain matter not contained in the chosen text.

Self-Confidence. The teacher who takes to the classroom an abundance of fresh information and ideas with which to enliven the recitation period renders his own manner one of greater self-confidence and ease. He carries to every recitation more than enough to supplement the work of the text and there is in his classes, therefore, never a moment of dullness.

Assigning Lessons. This is an important duty. The matter of assigning a reasonable and definite amount of work for pupils of all grades is one that has to be learned. Not enough work means wandering minds and mischievous plots. Too much leads to discouragement or careless habits of preparation. There are several methods of assigning lessons, the first and simplest of which is to indicate the exact page limits. This method is a good one in case of young children and it is never so bad and illogical as some writers pretend to consider it. There is much evidence that even high-school seniors will prepare a lesson better if they are told to study a certain number of pages. The well-written text will permit of this kind of assignment.

Another method is to give out one or more topics and

require that preparation be made thereon for the next recitation. If the topic method is used there ought to be an accompanying outline, one which shows the relative importance of the subtopics. The author considers the exponent system of outlining both confusing and abominable. But leave out the exponent figures, and it is very acceptable. That is, arrange coördinate topics one above the other, and place subordinate ones a certain space to the right and below the topic they subdivide. The topical outline has its greatest advantage in forewarning the pupil as to what particular work is expected of him. Its value, however, is much lessened by its impracticability, for the teacher has little time to make full outlines for all the subjects. It would add greatly to the merit of many common-school texts if they contained complete topical outlines of their subject-matter.

A third method of assigning lessons is to require a stated amount of written work. Such a plan gives the teacher a better opportunity of knowing how much work of preparation is being done, if the classes are large. It also helps in the matter of grading pupils justly. But if this method is to prove most effective two cautions must be observed: (1) Use every reasonable means to prevent the copying of written work among pupils. (2) Always see that the written work assigned is actually done, or else know the reason why it is not. Pupils soon learn to pad their written accounts and to bring up superficial or carelessly written matter unless held strictly to a standard. In every lesson-assignment let quality be considered above quantity.

Art of Study Acquired by Pupil. Many so-called stu-

dents never learn how to study. In our high schools and even in our colleges there may be found scores of young people blundering along through the course in hit-or-miss fashion. An inquiry made of two hundred college students obtained the interesting information that very few of them had ever considered in any way the question of methods of study. But this matter is not to be ignored. The student of any age who has a good, scientific method of study has the work of lesson-getting already half-done. Why not give a few minutes' specific instruction on this topic to every class in the school?

Finding a Problem. It is a hard saying but nevertheless true that the ordinary young pupil will not study unless a specific lesson be assigned him. He is absent on Monday and, asked to recite with Tuesday's class, says: "I didn't know what the lesson was." This same thing is common among even high-school and college students. The student's attitude in all such cases is as though he would say to the instructor: "It is my business to come to school, but it is yours to see that I know what the lesson is and prepare it."

Much has been said of late about the child's finding his own problem, but this theory seems to work well in only two classes of schools—namely, the kindergarten and the university. Turn the average healthy three-year-old child loose among the stock of nursery playthings and he will easily find a problem; that is, he will become thoroughly absorbed in his efforts to make childish constructions and arrangements and will learn much from the experience. The student at the university is supposedly proceeding in

the same manner, only on a much more intelligent scale. He goes into great libraries and laboratories and singles out of a confusing mass just such facts and figures as he can use in finding and working out a problem. His efforts are not more serious and matter-of-fact to him that are those of the child to the latter, judging each from his own point of view. There is this difference, however: The child's play is more capricious; the end is in the activity itself—he is playing. The university student is aiming at a more remote end, one outside of the activity. He is working. But in all the grades between the kindergarten and the university our schools are organized, as some believe, too thoroughly. The whole course is laid out for the child before he is born and, right or wrong, we find it necessary to coax or lead or force him to take it with very little deviation. So the much-written-about finding of his own problem is little thought of and less practiced by the average teacher.

There is a sense in which the spirit of the method of allowing the child to find his own problem can be observed. Too much help in lesson-getting reduces pupils to habits of dependence. Therefore, (1) let there be a minimum of actual, direct assistance given; (2) let the necessary assistance be given, when possible, without the pupil's knowledge of the fact; (3) let all helping and directing be merely suggestive. The pupil must feel that he is taking the initiative, that the work or the problem is largely at his own disposal. What if the Americans had given up the battle of Bunker Hill? Having found the area of a rectangle, how shall we measure a right triangle? Why is our

government so desirous of constructing the great, expensive Panama Canal? The preceding questions are such as might stimulate original thinking in case of intermediate pupils, especially if they be given time to answer them.

Significant Lesson Features. There is evidently much time lost by students of all classes on account of their not knowing how to determine what is most significant in the lesson to be prepared. Some try to commit the whole lesson to memory and hence retain little or nothing permanently. Others read the discussions over faithfully many times and yet obtain poor results because of a failure to organize the subject-matter. A little reflection regarding this matter will convince the intelligent teacher that one of the most profitable ways of expending the first hours of a new term is to give a carefully prepared course of instruction on how to study. The pupil must have a good, habitual method of procedure. It requires too much time to forewarn pupils regarding every lesson. Help them, rather, to form the habit, early in the course, of asking themselves: "What is the chief point of this lesson I am about to prepare? What is the author trying to tell, or explain, or prove?"

Time to Study. As pupils advance in years and experience they become better able to perform their work with a view to permanent results. After the first few grades are passed it is found desirable to break up the practice of studying a lesson immediately before it is to be recited. Whenever possible, advanced students had better make their preparations at least the day preceding the time of class discussion. It is amusing to observe mature students taking

a last fond look into their text-books just before they are to be called upon to recite. An orderly, systematic arrangement of all daily work is essential to the best results in school. Therefore, let the teacher place before the school a full program for study, as well as for recitation, showing both the order and the amount of time for each branch. Young persons trained to careful, scientific methods of study will have greater stability of character to sustain them in the work of their mature years.

Reference Work. The proper time to learn to do reference work is during the common-school course. Pupils of the grammar department are quite ready for this kind of exercise, but the mere recommendation that it be done does not suffice. It is necessary to make this reference work a requirement until its value is realized by the pupil himself and it has become something of a habit with him. For immature pupils an academic dictionary is better than an unabridged, and a condensed cyclopædia much to be preferred to an exhaustive one.

Suitable reference books for pupils will be listed at the close of the several chapters treating special branches, to follow.

REFERENCES

I

1 ROARK: *Method in Education* (American Book Co.); Chs. IV, V, "The Lesson." A clear detailed discussion of the presentation of the lesson.

2 HINSDALE. *Art of Study* (American Book Co.); Ch. VIII, "The Study-Recitation"; Ch. X, "Attacking the Lesson."

II

1 KEITH: *Elementary Education* (Scott, Foresman); Chs. VIII, IX, "The Recitation."

2 BALDWIN: *School Management and School Methods* (Appleton); Part II, Ch. XVI, "Pupil Improvement Through Educative Class Methods and Devices."

III

1 MC MURRAY: *Method of the Recitation* (Macmillan); Ch. XI, "Illustrative Lessons."

2 DE GARMO: *Interest in Education* (Macmillan); Chs. X to XII. All these chapters discuss the recitation ably.

3 DU BOIS: *The Point of Contact* (Dodd, Mead). A helpful book. Read it all.

CHAPTER VII

THE RECITATION (CONTINUED)

The Problem. The general problem of the recitation is how to secure the maximum of attention and expression from every member of the class. Without attention there can, of course, be little or no learning. But attention had better be of the involuntary rather than of the voluntary sort. Attention with effort really means divided attention. In such case the mind is engaged partly in following the presentation of the lesson and partly with the mere effort. A sleepy youth stated that he had had hard work following Professor X's lecture on Latin syntax, for his attention had alternated between the lecture and the task of pinching himself frequently in order to keep awake. Involuntary attention really means absorption in the subject, an ideal condition for learning. But in order that the attention may be of this desirable nature the subject must change and develop before the mind. The result of holding the attention upon a fixed object is either sleep or hypnotism. The child-mind, lacking depth of experience, is incapable of sustaining attention. After the first moment, nothing new or different comes into the meaning of the object unless the instructor aids in the matter.

The crowning act of learning comes through expression,

by means of which the nerve arrangements are made out and the work of memorizing made effective and permanent. This subject will receive full consideration in Part II of this book.

The Topic Method. This method consists in giving the members of the class a topic for oral or written discussion. If carried out carefully, it has several advantages. By it the whole discussion is given a logical center so that the other members of the class can more easily follow the one talking and think with him. It gives the members called upon an opportunity to offer a complete, even if brief, discussion. It furnishes to all considerable practice in restating and correcting the discussions of others. It is evidently the most suitable method for the upper-grade classes. Care, however, must be exercised in allowing the pupil sufficient time to make a relatively complete recitation on the topic. On account of a crowded course, this is the point whereat the most common error occurs. The clock is constantly threatening to indicate the beginning of another class period. So the discussion is snatched away from the pupil and given a quick, abstract clincher by the teacher, and the subject is dismissed.

Writing upon a topic is impracticable during the class period, for want of time. But written treatment of a topic, brought to class and submitted for consideration by all, is a valuable means of instruction. Such preparation of the lesson gives needed practice in precision and in correct grammatical construction, as well as more opportunity for logical arrangement of the thought.

Questions and Answers. The question-and-answer method possesses peculiar merit. It admits of a sort of rapid-fire movement up and down the line of the class in the course of which the least attentive or most sluggish pupil may be selected as the target. The members of the class are questioned not in any alphabetical or other fixed order, but in accordance with a preconceived plan of reaching those in greatest need of the exercise. No pupil ought to know when his turn is coming. The author has known instances of class-questioning being carried on in so routine a way that pupils would figure out two days in advance just when their turns were to come, and study accordingly. He knew another instructor who invariably began at the head of the alphabet and scarcely ever reached the letter M before the bell rang the changes. The pupils knew him, too. Every member of the class must think the answer before any particular one is asked to discuss a question. Hence, state the question first; then, call the name of the one who is to recite.

The habit some teachers have of wasting the precious moments in asking a long series of questions which the pupils can answer almost without thinking at all is abominable. He knows they know the answers, and they know he knows they know the answers, and he knows they know the last-mentioned fact, and the whole process is about as thin and insipid as a page from a Chinese primer. As this manner of conducting the recitation is noisy, and the pupils answer readily in concert, the teacher deceives himself with the belief that it is worth while. There are other instructors

who resort to this kindergarten method only when visitors are present, in order to make a creditable showing before the latter. Think of squandering the time of a class, every one of whom knows the eights thoroughly, in this manner:

Q. "How many is three times eight?"
A. "Twenty-four."
Q. "How many is eight times three?"
A. "Twenty-four."
Q. "Three eights equal how many?"
A. "Twenty-four."
Q. "Eight threes equal how many?"
A. "Twenty-four."
Q. "Three multiplied by eight?"
A. "Twenty-four."
Q. "Eight multiplied by three?"
A. "Twenty-four."

So the dull grind goes on.

Give the pupils something to do or something to think about at every step. If you suspect that a certain unprepared pupil has come to class with the hope of getting through the period on his luck or on his bluff or his circumlocution, attack him first with your questions. Be gentle and jovial with him, but be sure to lead him into entanglements that he might have avoided by studying the lesson. The entire procedure will have a good moral effect. It is recommended that questions at all times be made somewhat trying. Put the pupil on the defensive and make him responsible for every answer he gives. The questioning process often, with profit, drifts into an animated argument

during the course of which the pupil feels somewhat piqued. The feeling thus aroused will give him a better flow of language and more courage to carry on his side of the contention.

Leading Questions. Another abomination is the leading question, one that suggests unmistakably the answer. Many teachers unintentionally and unconsciously fall into the practice of using it. The question leaves just one, easily guessed word to be supplied by the pupil, or a slight accent in the teacher's voice indicates the correct answer. Often pupils are so enslaved to this method of leading questions that their dependence upon it would be amusing if it were not so serious, for it destroys in large measure the habit of reflecting for oneself. For example, a certain class of young people had been accustomed to this kind of training. All the members well knew that the verb *to be* is intransitive and therefore governs no case forms in the predicate. But when asked such a question as, "In the sentence, 'We thought him to be a man,' why is man in the objective case?" they were easily led into the erroneous answer, "It is the object of the verb, to be."

Much time and patience are required to eradicate the bad habit of answering without sufficient thought. An effective means is implied above; that is, ask a leading question that with seeming innocence invites an erroneous answer. Then cause the error to reflect discredit upon the scholarship of the pupil.

Some Small Matters. Begin the recitation at the pupil's point of view and gradually bring it to the point de-

sired. In case of young children a slight pretense of ignorance is often allowable. Children like to feel that they are telling something actually new. Early in the course of the recitation, see, if need be, that the threads of the last lesson are woven into the woof of the present one. Do not hesitate to allow a little fun and merriment to creep into the recitation. A merry laugh will often do much to overcome sluggishness and to create general good feeling. If either the teacher or some pupil possesses in his makeup a genuine vein of humor, let this vein be drawn upon occasionally to furnish condiment for the soberer thought. Not infrequently a humorous story can be made the basis of a splendid lesson of some sort.

Off the Subject. It is a mistake to think that the learning is all in the text-books. Very often a recent important occurrence or some new condition arising will readily make a more interesting and profitable topic for discussion than the one appointed for the day. It must not be forgotten that young pupils are not in school merely to study and recite text-book lessons. The ultimate end is so to fashion character that there will accrue to each individual a greater fullness of noble life and a greater sense of inner power. So the wide-awake teacher will make every important condition or event contribute to this higher aim. To illustrate the point, let us suppose that there has just occurred a terrible earthquake such as that of December 28, 1908, in Southern Italy. The minds of the pupils will be so occupied with this subject that little else can really be thought of. The teacher who rightly grasps the meaning of

his great profession certainly will not let this occasion pass without devoting an hour to the matter, perhaps before the entire school. He probably will first give a brief account of the catastrophe and the substance of the best available information as to the causes and the nature of earthquakes, and then make the moral lesson apparent.

It must not be forgotten that much of the most valuable teaching comes about through inference and suggestion. The lesson that is well taught so often merely leaves good impressions and silent judgments. In such cases the learner simply resolves within himself to make his own conduct conform in some particular way to a higher ideal. By this means there will be realized the import of the sound psychological scriptural injunction, "Be ye transformed by the renewing of your minds."

Stand or Sit. It is well to require young pupils to stand for part of the recitation. Rising to recite is the occasion of a little bodily exercise and brings the child prominently before the eyes of his classmates and the teacher. Besides increasing slightly his feeling of responsibility for the question asked, it gives the pupil practice in "thinking on his feet," as we say. The recitation which the pupil makes standing is really the first step in preparation for the important work of public rhetoricals that must come later. But it is slavish to follow without variation this rule of standing to recite. It is sometimes wasteful. Moreover, a little practice in remaining seated during the recitation is often a means of the pupils' acquiring greater force of vocal expression. It seems too suggestive of the

nursery to require mature students to jump to their feet for every little recitation. Such a method is likely to be regarded by them as trivial and beneath their dignity.

Daily Grading. It is difficult for some to understand why a teacher should sit with pencil in hand during the recitation and grade every pupil on his effort. Although some do this, it seems to others to be suggestive of the over-mechanical, bookish teacher. Students soon learn to observe this practice and try to take advantage of it. They will be seen craning their necks and peering over the shoulder of the teacher or watching his pencil movements in order to determine whether they have received a "ten" or a "goose egg." The instructor's real motive for this manner of marking daily grades is doubtless to reward the student for good, regular work, and to indicate to the latter that certain and immediate punishment results from his remissness. But the first object just named will be secured if the student is assured that his daily work will be considered in making the term averages, especially if the teacher establishes a reputation for such equitable form of grading at the end of the first term. If the class is not larger than it should be, the intelligent instructor can record from memory, at the time of the weekly or monthly quiz, the average daily grade merited by each pupil. As to the second object—punishment for the failure to respond properly—this may be secured to better advantage by means of the tactful rebuke administered during the course of the daily questioning. No self-respecting pupil cares to suffer the weight of humiliation under which he may thus

be brought by the skillful teacher. If it is felt, however, that there must be daily grading, let it be done in private, at the close of the period or the daily session.

Reviews. Reviews, unless very carefully conducted, are certain to be dry and uninteresting. More skill in the instructor is required to prepare for the reviews than to conduct the daily recitation. A carefully arranged outline for his private benefit, and perhaps for class use, is advised. Here two important matters may not be overlooked: (1) that the parts of the text not well understood during the course now be made clearer; (2) that the various important features of the term's work stand out in closer relationship. But both of these statements are but the expression in different ways of the only legitimate purpose of the review; namely, to enable the student to grasp more fully the whole subject under consideration. The review lesson that merely covers in a perfunctory manner the same old ground as the original one, may result in considerable noise in its recitation, but it also is attended with little thinking. To conduct a review for the mere purpose of enabling the pupils to make a better showing in the coming examination is unfair to them and folly on the part of the instructor. When it is remembered that pupils rarely, if ever, make any preparation for the review exercises, it will perhaps seem advisable to do more reviewing during the course of the term's work and less of it at the end.

Examinations. "What are regular examinations for, anyway?" is a question we often hear asked. Some schools have abolished them altogether and are depending upon

the daily class records and the informal test, or quiz, as a basis for promotion. Let us enumerate all the points that may be regarded as favoring regular examinations:

1 They furnish the only fair basis of promotion.
2 Students who are backward in the oral recitation are enabled by them to show their true merit.
3 They give all the same final opportunity to win promotion, and this accords with the student's sense of justice.
4 Being in the nature of an ordeal, they develop courage and self-reliance.
5 They furnish an incentive to more diligent study.
6 Through them the student is led to make the work of preparation more permanent.
7 They give opportunity for practice in making clear written statements of a subject.
8 A permanent record of work is obtained by means of them.
9 They afford the student a means of estimating his own worth.
10 The teacher has as a result of them something tangible whereby to defend his method of grading.

These points will be discussed informally.

The first point is not a very valid one. The quiz, which may be given at irregular intervals and at a time least expected by the pupil, will furnish data upon which to base promotions. There are at least two important advantages in the quiz as an informal examination: (1) The pupil

has had no opportunity to "cram" for it—an abominable though very common practice preceding regular set examinations. (2) The quiz, coming unexpectedly, finds the average student in better physical condition. The observing teacher will readily notice that many students suffer from nervous chills at the time of set examinations. A low degree of vitality is further manifested in the poor handwriting, the bad spelling, and the incoherent statements of many of the manuscripts, as well as by the cold hands and feet, the headaches and the like, of many students. Under the conditions just described disturbed or enfeebled heart action, a more or less benumbed state of the brain, sluggish thinking, and poor memory are necessary accompaniments.

A kind of superficial knowledge of a subject is often somewhat encouraged by teachers who go over the points with the class many times just preceding examinations. A prominent instructor in a state institution had a habit of saying, "Now remember that; it may come up again!" His students always noted this remark, for they knew his warning to mean that the final list of questions was being made up.

If teachers would make the daily recitation more nearly like an examination—that is, if they would habitually cultivate the sentiment among their pupils that the questioning is always to be of such a nature as thoroughly to test knowledge and mental grasp of the subject—then the final, set examination might be somewhat superfluous. Young teachers, especially, are often backward about asking sharp,

searching questions, for fear of offending the pupil or hurting his feelings. But nothing in the course of the recitation is better suited to develop positiveness of character and sureness of judgment in the latter than a series of such questions during the course of which he is put somewhat upon the defensive. Of course, sensitive pupils must be dealt with tactfully.

The manner of procedure just described will doubtless furnish the instructor sufficient data on which to base his promotions, but will he (or she) have the courage to mark any pupils below the required standard without some manuscript evidence? Perhaps not. For the pupil who fails is usually capable of a very able and persistent argument in behalf of his promotion. His parents—one or both, it may be—will have to be treated with also before the case is settled. As a means of defense in such instances as this it is recommended that the instructor have ready at hand some form of written work done by the pupil. The quiz papers will do. Let the papers be graded with perfect fairness and conscientiousness. Then, the teacher who would win self-respect and the respect of others must stand firm on his decision.

It can scarcely be denied that final examinations as usually conducted have little value as incentives to study and to permanent preparation of the lesson. A valuable suggestion in justification of examinations, taken from a paper written by my colleague, Professor J. E. Kammeyer, is this: "The pupil becomes accustomed to this method of gauging his fitness, and will find this experience a valu-

able asset to him when he becomes an applicant for any of the many positions or occupations to which a written examination is the only open door. It cannot be denied that the civil service idea is growing. Teachers are not the only ones who must pass an examination before they may secure a position. In our government service there are now 286,000 positions under civil service. Large corporations, states, and municipalities are adopting this plan." From this it is manifest that an experience in passing written examinations is of value outside of the schoolroom.

Perhaps the worst thing that can be said concerning them is that they encourage cheating and dishonesty. Students who are otherwise truthful and honest will often copy from the manuscripts of others, and many who will not scruple to do this will readily permit others to look at their papers. There seems to prevail among students and pupils a sort of sentiment in effect that these set examinations are something to be dreaded and that they are simply a means whereby the teacher is trying to get even with them for their remissness. These resentful feelings themselves encourage dishonesty.

If the best results are to be obtained from the examination it is only fair to each student in the class that every reasonable effort be put forth to remove opportunities and temptations to cheat. Seat the members of the class well apart so that they will not be in plain view of one another's manuscripts. And, then, it is not well to arouse resentment by keeping too close watch during every moment of the period.

PART II

THE SPECIAL BRANCHES OF INSTRUCTION

INTRODUCTORY

BEFORE detailed suggestions are given regarding the treatment of this or that particular subject, it might as well be admitted that there is no universally best method of instructing in the case of them. Efficiency in teaching is always a question of results, and some obtain good results through methods that others could not use to advantage. There are, however, certain high aims connected with any subject. Some of these might well be pointed out, and certain psychological principles of procedure, as well. But the best that can be attempted here is to stimulate the mind of the teacher to the end that he may not blindly follow traditional methods, and to the further end that he may call out his own best resources in handling any subject.

Nothing is more to be shunned by the teacher than foregone conclusions. It is so natural and easy to fall into routine methods of teaching without questioning the results of these methods. It is difficult, on the other hand, to set a constant watch upon these matters and to keep renewing one's ways of regarding and treating a subject, but the ability so to do is one of the characteristics of the progressive teacher. He who shows constantly a disposition to regard an old truth in a new light is still deserving of being credited with mental youth, and he possesses within himself

the means of his further enlightenment. One of the best methods of keeping an open consciousness with reference to the branches taught is (1) to read and study the new advanced texts in the particular subjects, and (2) to do considerable reading in general philosophy. What the young teacher especially is likely to lack is a sufficient fund of associated knowledge with which to enrich the subject-matter of the recitation.

CHAPTER VIII

READING

Self-Examination. Before attempting to teach reading to the various classes of young children let the instructor pass a mental examination on the two sets of questions that follow:

A

1 What kind of literature interested you most
   - a When you were just entering the first grade?
   - b When you were eight to ten years of age?
   - c When you were thirteen to fifteen?
   - d When you had reached your present point of development?

2 Do you note any marked change in your literary taste during these various periods?

3 What was the chief benefit of the literature most enjoyed in each case?

4 How much of the reading that you now do is for mere passing entertainment?

5 Does your present reading contribute
   - a To your understanding of people?
   - b To your ability to converse fluently with others?
   - c To your moral standing in the community?

B

1 By what method were you taught to read?
2 What was there useless and wasteful about the method?
3 Was it really the method or the content of the lesson that aided you most in learning to read?
4 What sense organs were of most service in the process?
5 Of what service was your imagination?
6 Of what service was the knowledge you then had of concrete things?
7 Were you reared in the country or in the city?
8 Why can you teach reading better if you have personal knowledge of the pupil's home environment?

The ends to be sought in teaching reading, as implied by these two sets of questions, are an ultimate one and a mechanical one. The usual order of treatment will be here reversed.

The Ultimate Aim. The ultimate end of teaching this subject is, roughly speaking, to enable the student rightly to appreciate and to interpret good literature, such as will help to make him a better and a happier member of the family circle in which he lives, and a stronger and more useful member of society. Good literature has two or three important functions, the advantages of which will finally accrue to the well-trained reader. It not only instructs and entertains one but also becomes a source of inspiration to him and renders his casual thought-activities worthy. Bad literature produces in the mind useless dreaming, vain-glorious aspirations, and sensual and criminal intentions.

So the pupil must finally acquire the ability to distinguish between these two classes of reading, making use of the one and rejecting the other.

A Less Remote Aim. But we must not lose sight of the fact that the child is, from his point of view, just as vitally a member of human society at ten as he is at twenty or later. He is not merely preparing to live in the future but living now. However, his ideals and aspirations are constantly changing and hence the character of his reading-lessons as well as the manner of interpreting them must change. It is, therefore, the duty of the teacher to understand fully the nature of the likes and dislikes of children at various stages of their growth, as well as to know the peculiar characteristics of those immediately under his instruction, and to present the reading-lesson accordingly. It is not enough to say that the reading-lesson is merely a means to instruct the child. It must influence him in his daily conduct and become a factor in his character-building. The story told in the lesson, perhaps incidentally —of the consideration of a young lad for an aged grandmother; of the faithful assistance rendered by a young school-girl to her afflicted mother; of the manly courage of a youth who chose the right course in the face of great temptation; of the earnest and faithful endeavor of the boy who had to make his way alone in the world—these are examples of the types of sentiment that may develop out of the reading-lesson and enter into the lives of the young readers.

Children enjoy nonsense and fairy tales and other stories

that sport with the fixed conditions of reality, and it is well to indulge them considerably in such enjoyment. Too much nonsense in the reading-lesson may lead to fixed insincerity and possibly prevarication in later life, but a certain amount of it is believed to be contributive to that healthy light-spiritedness which characterizes the attractive member of grown-up society. How fondly many persons treasure the Mother Goose rhymes learned and oft repeated during early childhood! And, too, a little nonsense is occasionally a healthy tonic for both the body and the mind of the child. Many excellent authorities on educational theory now recognize its value. Too many purely imaginative stories may tend to develop the youth into the unscientific vagarist, while the other extreme may leave the mind too matter-of-fact and prosaic. A happy mean is, therefore, to be sought here also.

Which Method? Doubtless the impatient reader is already wondering why one of the traditional methods of teaching beginners how to read is not recommended as best. While it is admitted that the mechanical phase of teaching this subject is of considerable importance, it is also maintained that an interest in the content of the reading-lesson is of vastly greater importance. Secure and hold this interest in every lesson and the average child will progress splendidly in the task of learning to read, in spite of a bad mechanical method, or none at all in particular. The author has to confess that he was taught to read by the old-fashioned a-b-c method—a shameful thing, as some modern pedagogues would have us believe. He first learned thor-

oughly all the letters of the alphabet, and was then taught to "read the words by spelling the same." And children acquired the art of reading very readily in those good old days.

The Word Method. The word method assumes, not without reason, that the child-mind grasps things more easily in wholes than in parts; that the eye of the child learns to recognize the word more readily if he is not confused by attention to the elements, i. e., the letters of which it is composed. The usual plan is to present to the beginner at first simple names of objects most familiar to him; and, when practicable, to show a picture or even the object itself as an aid. Children who are good visualizers advance very satisfactorily by this word method, but there are many so-called "audiles" among children—that is, those who recognize objects more readily by sound than by sight. These are assisted very much in the reading-lesson if they are acquainted with the letters of the alphabet. Let the teacher test this matter for himself and he will find not a few children who can recognize the more difficult words only after they have heard themselves spell them.

The Sentence Method. This method differs only in degree from the one just discussed. Since the sentence is the expression of a full thought the child naturally and readily recognizes such an expression as the unit of printed discourse. A single word suggests an idea to him, but the whole sentence expresses it for him. An actual test of a child that is learning to read will really show that he can read a whole sentence quickly and yet not be able

to recognize certain of the component words when these alone are pointed out to him. The fact is, very probably, that he has committed the sentence to memory and that the first two or three words, recognized either by sight or by sound, enable him to repeat the whole statement.

But a serious objection to this method arises when we become aware of the fact that whole sentences are seldom repeated and that the acquaintance of the child with one sentence is, therefore, of little service in his learning another. Hence, his reading-knowledge is not cumulative in power. Single words are often repeated and they are, therefore, psychological elements of the reading-lesson. While the ordinary mature reader doubtless takes in at a glance whole phrases and sentences, his act of recognition is the result of thousands of experiences of seeing the separate words in manifold groupings or arrangements. To the practiced reader the whole process of reading is so thoroughly familiar that it well-nigh baffles analysis. He has a full stock of images of all the words most commonly used. But let just one familiar word in a simple sentence be printed in an unusual kind of type, say, capitals, and he will probably have to stop and spell out this word before he can recognize it. He really has no visual image of the word printed in capital letters.

The A-B-C Method. There is really no pedagogic sin in permitting children to learn the letters of the alphabet along with their reading-lesson. They are inclined to do so, anyway. In fact, many of the most efficient primary instructors teach not merely the letters but their elementary

sounds, and spelling as well, to mere beginners in reading. Unfortunately for this method, many teachers, especially those in the ungraded district schools, are themselves none too familiar with the elementary sounds. In case of such teachers it seems best to advise that beginners be taught to spell the simple words of the reading-lesson, especially since this is an age of poor spellers and of little practice in the art of spelling.

The Secret of Success. One of the chief secrets of success in learning to read well is practice. He who reads much reads fluently, easily. Some children never become good readers for the simple reason that they never become thoroughly interested in reading of any kind, and hence do not read much. If the teacher can so present the first simple lessons in this subject that the content actually appeals to the child, the latter is well on the road to successful mastery of the subject. This point of vital, personal appeal to the mind of the child simply must be found or the work will be a failure.

The First Lesson. As an introduction to the first lesson in reading, the teacher should form a close acquaintance with the child. If the latter is ready to enter school, he can talk familiarly on some childish topic. Determine what this topic is and begin the work at the point upon which the child has the most knowledge. This lesson must be both interesting and entertaining to the child, so that he may through freedom from self-consciousness be placed in the first essential mental attitude of the learner. The author's first reading-lesson was found in McGuffy's Primer and

was about the ox. The first sentence was, "It is an ox." But what child of to-day would know anything about the ox? Even the familiar and much-used cat is scarcely known to some. Most children are inclined at home to play in a routine way unless directed thoughtfully. This routine makes the child most familiar with some particular thing. It may be a goat, a donkey, a top, a kite, or a toy cart. Discover what this familiar thing is, lead him to talk about it, and draw a picture of it (if you can). Then print plainly the name of the object on or below the picture, and the start is made. Continue this method of teaching names of, and familiar statements about, concrete objects, and the child will readily learn to read.

One of the first mental acts of the child in this process is that of associating the printed name or word with the sound of the word and the object for which it stands. The ordinary primary teacher can secure a helpful suggestion from the lessons taught to deaf and dumb children. Such children do not usually know, until they enter the formal school for such defectives, that each of them has a name. They are taken in a group and each one is led in turn to the blackboard and required to stand under his own name written thereon while, by means of signs, the others are enabled to see the connection.

Go Slowly. The earliest recitations in reading should be characterized by thoroughness. Repeat often and make haste slowly. It is a very great advantage, especially to the young teacher, if the school authorities have made a wise selection of a primary text. If such is not the case

and a poor text has to be used, let it be supplemented by brief lessons from a good one. The Wooster Primer, for example, is almost ideal. The teacher will observe carefully some of the excellent features of such a book; for example, the introduction of few new words at any one time, and the frequent repetitions of the words used so that they may be learned thoroughly. Of course, a class of beginners, like all other classes, will be uneven. It is perhaps as bad to hold back the quick ones as it is to hurry the slow ones. Some means ought to be devised whereby all may be given an amount of work proportionate to their capacity. How shall it be done?

In attempting to answer this question let us introduce the discussion of another, viz., that of teaching writing to beginners. Some able modern authorities are maintaining that it is a serious error to have children under eight years of age try to learn to write. They claim to be able to show that the nerve centers which control the fine movements for writing are not well developed until about the eighth year. This is no doubt true in many cases. But it is also true that the child's nerve centers do not develop and awaken to activity in any fixed order. One child may learn to walk long before he can pronounce a word distinctly. Others may utter a number of words before they can take a single step. Some may acquire great dexterity with the hands while the speech organs are yet silent; they can feed themselves, drink from a cup, drive a nail, or hold a pencil without assistance before they gain any considerable control of the organs of

speech. Some can write with more ease and accuracy at six than others can at twelve.

It is suggested, then, that those children who are quick at sight reading and at spelling be tested in their ability to write, and, if the conditions prove favorable, that they be given work in writing as an extra task, even though they be under eight years of age. Or, if the members of the class are all old enough to write, the ones that prepare the reading-lesson with most ease may be given a greater amount of writing, or other extra work, than their slower classmates, so that their impatience may be held in check.

The Technique of Reading. It will be necessary to give considerable attention to the technique of reading, not as a separate, distinct means of discipline but in connection with instruction in interpretation. Some time must be given to phonics. Introduce the elementary sounds by slow and painstaking steps from the beginning of the course on, requiring mastery of each one before the next is taken up. It may be necessary, by means of examples, to show the child how to place the organs of speech, but the practice of clear, distinct and oft-repeated utterance by the teacher will tend to bring the desired results automatically on the part of the child. As few of the words of our language are spelled phonetically, an acquaintance with some system of diacritical marks will be necessary. It is unfortunate for all that there is more than one system in use to-day. The text in reading will doubtless follow one of the modern systems. Make use of that, but do not introduce too many

marks at one time. Let slow progress and thorough familiarity be the rule.

Technique and Motive. If the pupil is to master the mechanical part of reading he must acquire a motive, such, for example, as to obtain information from the printed page and to be able to reproduce it and communicate it to others. Pure tones, rich qualities of voice, natural modulation, and easy, incisive pronunciation are ends to be sought by the teacher, but that delicate adjustment of the pupil's organs of speech so essential for the attainment of these aims will be brought about most satisfactorily only as a result of such psychical conditions on the part of the learner as interest, and willingness, and desire to obtain and express knowledge. The feelings and emotions accompanying these better psychical conditions will tend to loosen the tense parts of the physical mechanism and to beget the desired effects automatically.

The technical elements of vocal expression are time, pitch, quality, and force. Modern authorities are practically agreed that the best results are obtained not by teaching these matters as such but by means of the pupil's practice in reading orally actual literary selections suited to represent them. The teacher's own models of correctness, frequently given, will serve to guide and inspire the pupil. The former is conscious of the specific aim of the lesson, e. g., to develop better quality of voice in the latter, and selects his model lines accordingly; but the pupil is simply absorbed with interest in the work of reading. He is unconsciously

imitating the teacher's correct models and is *expressing himself.*

"The time given a word or phrase indicates the reader's measure of its value," says Professor Raymond in his *Orator's Manual,* "while pitch, or melody, represents the mind's motive." This is, unquestionably, good psychology, and it emphasizes again the necessity that the pupil's understanding, and hence his feeling and emotion, precede his vocal expression. Quality of voice is especially a manifestation of feeling and emotion and is acquired best only as a natural consequence of them. Force, or stress, exhibits the degree of mental energy of the reader, and all artificial means of teaching it will prove fruitless. It is needless to say that an active, well-directed imagination is a prerequisite of good results in expression.

The Spirit of the Lesson. It is earnestly advised that in teaching reading the teacher guard against letting the letter of the law overshadow its spirit. It is often exceedingly profitable to devote one half of the lesson period to a discussion with the pupils, from their point of view, of the contents of the reading-lesson. Unless they can appreciate the subject-matter of the lesson, and live out in imagination then and there its meaning, there will be simply a mechanical pronunciation of the words. The monotonous, unnatural mode of expression often heard in the reading-class is a pretty certain indication that the reader does not appreciate the meaning of the words he is pronouncing.

It is especially difficult to develop in children a true appre-

ciation of the spirit of poetry. Few teachers seem to be equal to the task. Many young pupils who read prose selections well will literally sing the poetic stanzas, placing the emphasis in such a manner as to make the thought appear nonsensical, and to betray utter lack of appreciation. How vividly the author recalls the tune to which third-reader pupils of his district-school days read Longfellow's

> Tell me not in mournful numbers
> Life is but an empty dream,
> For the soul is dead that slumbers,
> And things are not what they seem.

Each pupil rose in turn and ran up the first line and down the second, then up the third line and down the fourth, and so on without variation to the end of the poem. The teacher seemed to place a great deal of value upon speed, so there was an open race for the end of the stanza. Children have a natural fondness for the rhythm of poetry, and they often seem willing to violate every other principle of reading in order to bring out this one. For example, they will place all the emphasis on an important word at the end of the line and obscure the word that gives the sentence its very life and meaning. This sing-song reading is doubtless somewhat enjoyed by pupils on account of its meter and rhythm, just as the singing of a song, the words of which they fail to understand, may be. As a means of correcting this monotonous manner it is suggested that considerable time be given to paraphrasing the poetic lines. Require pupils in so doing to follow the natural order of the parts

of the sentence. Grammatical analysis of the sentences also will be found helpful.

Criticism by Pupils. How many thousand teachers in this land are conducting the reading-lesson about as follows! The members of the class arise and read in turn, each one striving to read rapidly and without mispronouncing a word. After the reader is seated there is a show of hands and the teacher calls, "Johnny?" "Called 'a' 'the,'" says Johnny. "Jennie?" "Called 'and' 'but' and left out 'had.'" "Thomas?" "He hesitated." After a hasty recitation entirely of this nature the pupils trot off to their seats with a feeling that the task has been well done. But the whole trouble lies with the teacher, who is giving too much attention to the relatively unimportant. It is not a question of the pupil's reading rapidly and without omitting or mispronouncing any words. Does he enter into the spirit of the selection and express its meaning in clear, distinct tones and with proper emphasis and feeling? Rather than waste precious time in hearing criticisms so trivial as those illustrated above, allow none at all. Even a good reader will mispronounce a few familiar words and hesitate occasionally.

The Teacher's Opportunity. There is perhaps no other subject in the whole curriculum that offers half as many opportunities for the teacher to develop character as does the reading-lesson, and he who fails to seize these opportunities is missing the mark of his high calling. Every shade of sentiment and every kind of human conduct is likely to come up for consideration. Education means

leading out or drawing out. The tactful drawing out of the pupil's judgments by means of questions and discussions, and the art of leaving in the latter's mind the right inferences—these two arts constitute much of the fruitful work of the real teacher of reading.

A good many years ago there was used in the schools an old third reader which contained the story of the swan that had a broken wing and could not fly away with its mates, but was compelled to pass a year alone in a desolate place. One teacher, a young man, took his class through this lesson and saw that all the words were pronounced correctly, but the real merit of the story was little heeded by either teacher or pupils. The next term a little schoolma'am was in charge of that small district band of learners. The same old swan story was read by the third-reader class, and there were a number of moist eyes among the members when they came to the passage which read, "Far up like a letter V drawn against the sky flew a flock of swans. Our poor crippled swan knew them well, for the cry of the leader was plainly heard." The little teacher had not said much, but she had directed the thought of the pupils carefully, and the proper sentiment in behalf of the helpless dumb creatures was inculcated. Thus incidentally this worthy young woman was engaged in the work of character-building.

Supplementary Reading. On this subject there now need be but little written. Love will find a way. In this age of plentifulness of cheap but valuable books the young person who has been properly trained to get at the real

essence of the reading-lesson will naturally find his way to the shelves where the books are to be obtained. In case of a rural school, where there is not yet the beginning of a library and no supplementary reading-matter at hand, the teacher can do nothing worthier than to arouse public sentiment in regard to the matter. By writing to the publishers of almost any of the ordinary text-books one can secure catalogues containing long lists of titles of inexpensive but desirable classics, and other volumes. In order to secure the nucleus of a district-school library the first small sum of money raised might be expended with an assurance of profitable returns, for the following dozen books: *Evangeline* (Longfellow), *Vicar of Wakefield* (Goldsmith), *The Story of the Chosen People* (Guerber), *The Book of Golden Deeds* (Young), *Green Fields and Running Brooks* (Riley), *David Copperfield* (Dickens), *Wild Animals I Have Known* (Thompson-Seton), *Autobiography* (Franklin), *Enoch Arden* (Tennyson), *The Sketch Book* (Irving), *Tales from Shakespeare* (Lamb).

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III

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CHAPTER IX

LANGUAGE AND COMPOSITION

Language. It may be said that there are two aspects of the work of language-teaching in the public schools, viz., the constructive and the reconstructive, or corrective. That is, much of the teacher's attention must be devoted both to directing the pupil in the acquisition of new, correct forms of expression, and in the discontinuance of old, erroneous ones that have become thoroughly habitual.

The Aims of Constructive Language-Teaching. Some of the ends to be realized in the child in case of direct language-training are an increase of vocabulary, readiness and facility of expression, and clearness and precision of style. Incidentally the pupil may also be made acquainted with some of the simplest elements of grammar and composition. In fact, the formal work of both of these subjects may be approached gradually by means of the instruction in language.

The Lesson Plan. The teacher must have clearly in mind some purpose to be accomplished in case of every lesson. For example, assuming a class of 2 B pupils, the work may be begun by selecting some familiar object about which the learners are to try to form a number of coherent sentences. Avoid dry, abstract topics, and choose rather some-

thing in which children have a living interest. Good models of coherent groups of sentences to be brought out about some familiar topic may be found in the best model school readers, such as the Silver-Burdett Series. For illustration, Donald Eyer's big St. Bernard dog Ted is a daily playfellow of the school-children. So the teacher announces, "We will now see what we can say about Donald's dog Ted." Helen then begins: "Ted is a big dog," and Harold follows with "Ted likes to play." By means of a little guidance the pupils are led to substitute "he" for "Ted" as the subject of the second sentence. Continuing in this manner, the teacher soon elicits from each member of the class one or more grammatical statements or questions about the given topic. The sentences may then be written on the board in the order that seems most suitable.*

Additional Topics and Methods. Topics for further lessons or for more advanced pupils will be readily chosen by the teacher. To develop the use of *is* and *are;* of *were* and *was;* of *this* and *that* and their plurals; of *your* and *my, our* and *their;* and finally the singular and plural forms of any given noun or verb—each of these is suggested as a suitable lesson plan. After considerable practice in real sentence-construction, the pupils may be asked to bring the sentences to class in written form. Thus composition is begun.

For more advanced work take such a statement as "Birds

* Instead of familiar objects, which are not always available as topics for sentence-building, some have found it very profitable to substitute pictures. For this purpose the Perry Pictures will furnish good, inexpensive materials.

sing," and after developing the idea of subject and predicate, require the pupils to produce adjuncts, or modifiers of both. By the aid of ruler, blackboard drawings, and familiar objects, teach the use of words denoting geometrical forms and relations; for example, such words as *square, round, opposite, adjacent, larger, longer, vertical, parallel* and *perpendicular.* In all this work and that suggested above, have a specific purpose to be accomplished by each lesson; then proceed slowly, helping the pupil to correct his own errors rather than bluntly correcting them for him.

Reconstructive, or Corrective, Language-Teaching. Notwithstanding our many schools and our much training in the use of the mother tongue, we hear every day many violations of the principles of good usage in oral expression. In the rural districts of our country and in the so-called Middle West, these violations are, perhaps, commonest. Culture for its own sake is not so highly thought of in these localities as it is, for example, in the New England States. There are really two languages—one of the press, having strict conformity to a set of fixed rules; and one of the populace, tending to be a sort of law unto itself. The latter is characterized by (1) much slang, the most of which has its brief day of popularity and then becomes obsolete; (2) slurred, elided, and otherwise broken expressions; and (3) direct violations of the laws of English grammar.

Imitation. One's language forms are acquired almost wholly by imitation. The child just learning to talk repeats

as best he can the words he hears used, whether they are correct or incorrect. Language habits are formed very early and soon become fixed by constant use so that they are difficult to change. The child that says to the teacher, "I ain't got no book," reveals in this sentence much as regards the expressions he has been hearing and imitating up to that time. Moreover, the experienced teacher knows only too well that it will be many a day before this child discontinues his distorted speech forms and substitutes correct English therefor. There are two reasons why marked reformations will be difficult: (1) The child will probably continue to hear the erroneous expressions at home and to imitate them there, and (2) he has already by this time developed at the speech centers structures in the nerve cells which will make these objectionable forms very easy and natural of use.

The Problem Stated. The problem of the teacher, then, in giving language-instruction to pupils that are accustomed to incorrect forms will lie at the root of neural habit. Corresponding to the child's much-used expression, "I ain't got none," there is a nerve-cell arrangement that persists in staying as it is. And although the child may be willing to be taught to say, "I haven't any," and he may even intend to make the correction permanent, the very nature of the case is against him, for one simply cannot be at all times conscious of the form of his expressions when it is the mind's chief business to be conscious of their meaning. And so the well-meaning child will soon be off his

guard and the old familiar expression flow out freely as ever.

It would seem, then, that the only mode of offense—for one must make an attack upon these bad speech forms—is to force a place for the new expressions in the child's nerve cells by means of numerous and frequent repetitions. Cause the child to repeat many times and to hear repeated by others many more times the "I haven't any," until it tends to linger in his consciousness. It must become second nature to him through repetition. Unfortunately the overcoming of one error of this kind does not give much assistance in the attack upon the next—except perhaps in an increasing habit of attention to such work. So, "I seen them boys fighting," will have to be dealt with in the same firm manner as "I ain't got none."

Oral Teaching. The language-teaching in the ungraded schools will in many instances have to be incidental to instruction in other branches. An overcrowded program in such schools usually forbids the formation of separate language classes. But much of value can be accomplished in an incidental way provided the teacher be ever vigilant in regard to the matter. In the first place, he himself must be master of a good style. He must at least possess habits of good, unaffected expression, even though he may lack somewhat in fluency and in extent of vocabulary. In the second place, he must insist at all times on full, correct, and forcible expressions on the part of the pupils. It is exceedingly common as well as distressing

to find that public-school teachers do much of the talking that ought to be done by their pupils. To do so is really the easiest way to conduct a recitation if one is in a hurry, and so the habit is easily formed. Pupils seem naturally to hang back and wait for questions that can be answered by "yes" or "no" or a grunt or a nod. The successful teacher makes his pupils do the talking.

Stir Them Up. The average schoolroom atmosphere is not conducive to quick, forcible oral expressions, surcharged as it is with poisonous gases and depleted of its oxygen. As a consequence, the pupils tend to be more or less sluggish of blood and brain, and hence slow of speech. But after the atmospheric conditions have been made as favorable as possible the members of the class reciting must be stirred to action both singly and in groups. By repeatedly selecting out a sluggish or backward member and holding him to the point of the question until he has expressed himself to his fullest capacity, the teacher can soon lead the whole group to infer that it pays to speak up pointedly and express oneself. It is both conceivable and advisable that during the first days of the new term half of the time for recitations be taken up with just this sort of wrestling with language problems. The reward for this persistent effort on the part of the teacher will shortly become apparent, for under such pressure pupils soon fall into habits of full oral expression.

The Problem Twofold. The language problem now becomes twofold. It is a matter not merely of replacing old,

objectionable expressions with new, desirable ones, but also of the imitation of forms entirely new to the pupils. The observing teacher can soon become acquainted with the limits of his pupils' vocabularies. He will often, also, become conscious of his own use of expressions which he knows to be new to them. Such expressions, if brought into unusual prominence by a little extra emphasis of some kind, will be imitated by pupils. After a few repetitions of these new forms the careful teacher will be rewarded with the pleasure of noting their incorporation in the pupils' vocabularies.

Language comes before grammar, which is at best a sort of necessary evil. The better and the more fluent the language of every-day practice the less will be the effort necessary to master the rules of technical grammar. The best rule of common usage is that which requires simple, direct, forcible statements with little attempt at embellishment and no affectation of voice or manner.

Written Composition. A certain boy fifteen years of age had never been required consciously to compose a single paragraph, when very unexpectedly his teacher announced that "each member of the class must write an original composition of three hundred words for to-morrow's recitation." This youth was not only surprised but stunned, for no outline, no hint as to method of procedure, not even a subject on which to write, was given. He worried much over the selection of a subject for his essay, but finally "Education" was decided upon and the real work begun.

Then he wrote, "Education is a good thing," and stopped short, exhausted and entirely empty of further ideas on the subject. After staring long at the blank page, the distressed young man tore it to pieces and made a new start. This time he wrote in a more careful hand (thankful that at least the penmanship worked better), "Education is a good thing," and stuck again. No bolstering up of the broken-down vehicle of thought would make it run any further. The attempt was given up in disgust and the poor boy stayed in at recess on the morrow as a punishment for failure, or rather for the teacher's ignorance.

The foregoing story is indicative of a very common situation existing to-day in reference to composition-teaching in rural schools of many of the states. An untrained teacher is requiring work of a pupil for which the latter has had little or no preparation. As a consequence the undertaking is both unpleasant and unprofitable. Two suggestions are offered here: (1) The teacher who is called upon to give instruction in composition as a part of the ordinary routine of school work may, himself, never have had any formal instruction in the subject. There are many such cases to-day. In such an emergency he must take a home course in the subject or most probably fail in his efforts to teach it.* (2) If the pupil has not been prepared for formal work in composition writing, some introductory exercises must be given even though he has arrived at a suitable age for beginning the advanced work.

* For home study "Elementary English Composition," by Scott and Denney (Allyn and Bacon, Chicago), and "Elements of English Composition," by T. F. Huntington (Macmillan, New York), are recommended.

When and How to Begin. Rather than be forced to rush at a difficult task as was attempted by the youth in the story related above, the pupil should be led up to the work of formal composition-writing by steps so gradual that he never knows precisely when he arrives there. If the crowded course of study does not admit of regular language-teaching in the lower classes, it is perhaps best to attain the purpose desired by introducing written work in connection with some other subject, say reading. The first lessons may be such as were outlined in the first division of this chapter. But the mere beginner cannot be expected to make much headway until he has found a motive for the work, and this means that he must have in mind a subject about which he desires to write, together with the impression that somebody desires to learn about it from him. He is then in a mental attitude suitable for the task of writing. For the young writer, therefore, the problem is twofold, viz., how to get possession of suitable ideas for expression, and how to express these ideas so that they may appeal favorably to some one else.

Choosing a Theme. The first important step in composition-writing is the choice of a subject and subsequently of a theme. Young students are not at all capable of doing this important preliminary work for themselves, nor are high-school students, without having had special training in the matter. The subject is general and may admit of many forms of treatment, while the theme is particular and is suggestive, perhaps, of but one. "Crossing the Des-

ert," may be a somewhat more euphonious title for a composition than "A Trip by Rail across the Nevada Desert," but the latter is certainly more nearly a real theme, for it suggests at once something of a definite nature.

In the task of assisting pupils in the choice of a theme the teacher must consider the several natures and experiences of the young writers. How have they lived and thought and worked thus far? What concrete meanings have they already got out of their experience? What types of conduct and character appeal to them as being of most worth and therefore as contributing to their ideals? The teacher who would make composition a living, inspiring subject rather than a dull, wearisome one must be directed in the selection of suitable themes by means of finding this personal side of his pupils' natures. Even that big, bashful, awkward boy is thoroughly familiar with some matter about which he can talk and even write entertainingly. Find it and draw him out on the subject. Do not be concerned at first about the crudeness of his expressions, provided only that you have tapped this rich vein of personal knowledge.

A Definite Plan. After the theme has been chosen always start out to accomplish some definite purpose. The author agrees with Huntington in the opinion that pupils "must be taught to feel fully and vividly, and that, too, at the very entrance of their work in composition, that writing deals primarily with ideas rather than words, with what one has to say rather than how he is to say it; and that they

themselves have already an abundance of fresh, entertaining ideas, peculiarly their own, which they can put into their school themes." After this vein of ideas has been discovered, as suggested above, and the theme chosen, the writer must be made more conscious of the specific purpose and the general plan of the theme. For example, he is required to describe some particular object from some particular point of view and for the purpose of interesting some particular audience. It is true, in most cases, that the young essayist has an abundance of fresh ideas, but the definite theme-plan is necessary in order to direct him in the selection and use of only pertinent ideas. Under this mode of procedure no theme topic is too commonplace for consideration.

Practice and Habit. The best writer is least conscious of the restraining influence of rules. While the beginner is merely finding this new written mode of self-expression, all unnecessary restrictions should be withheld from him. He must first acquire the habit of expressing himself in the new manner by means of much practice. After he has got his general bearings, as outlined above, practice is the next important matter. As practice precedes and underlies habit, so habit, and consequent ease and facility of expression, must precede complete interest and enthusiasm. Once rouse the two mental attitudes last named, and the pupil will readily submit to priming and criticism, but it is a very easy matter to frighten the young writer into silence and even stubbornness by too much red ink and

too strict application of rules. Such matters as choice of words, sentence-structure, and paragraph-unity will become of interest to the pupil after the start just recommended has been made, for they then appear to him as further means of facilitating the work of which he has already become fond.

Outlining the Theme. Another important step in composition-teaching is outlining. This work should be done carefully and in the presence of the class. While the teacher may have the outline pretty well in mind, he can easily afford to make a new one on the blackboard, and to incorporate within it as many suggestions from the class as possible. Let the pupils feel that they have a part in making the outline, and they will take greater interest in writing the composition. The main subtopics should be arranged in logical order. One half the work and more than half the worry are over when the subject has been logically outlined. So it is urged that teachers proceed slowly and help the pupils to make careful outlines of at least the first half-dozen topics. Then the pupil may attempt to make one of his own and hand it in for correction. In case of a lengthy dissertation—which should seldom be required of classes below the second year of the high school —it is a good plan to have one subdivision written for each day's consideration. After this, the whole may be woven together in revised and corrected form.

The outline serves two very important purposes for the pupil: (1) It guides him in a logical arrangement of his

thought. (2) It furnishes suggestions for the details of the composition. Herewith are given a few suggestive outlines:

WHAT CONSTITUTES A GOOD MEAL

I The Bill of Fare
  1 Meats.
  2 Vegetables.
  3 Drinks.
  4 Desserts.
II The Preparation.
  1 The Cooks and the Utensils.
  2 The Modes of Cooking Certain Foods.
III The Serving.
  1 The Waiters.
  2 Part Taken by Host and Hostess.
IV The Dining-Room.
  1 Tableware, Linen, Etc.
  2 Furniture and Decorations.
V The Company.
  1 Of Whom Constituted.
  2 Refined Manners.
  3 Good Cheer.
  4 Lively Conversation.

This outline may suggest slight digressions from the main topic. Such digressions are intended, however. The youth is too much inclined to think he is through with describing a good meal as soon as he has made out the menu.

THE IDEAL YOUNG MAN

I Personal Appearance.
  1 Complexion.
  2 Height.
  3 Weight, Carriage, Etc.
II Dress and Manners.
  1 Character of Clothes.
    a For Work.
    b For Society.
  2 Gentlemanly Conduct and Politeness.

III Disposition.
- 1 Sympathy for Others.
- 2 Control of Passions.
- 3 Cheerfulness in Depressing Circumstances.
- 4 Courage in Meeting Obstacles.

IV Character as a Student.
- 1 Preparation of Lessons.
- 2 Manner of Reciting.
- 3 Application of Lessons Learned.

V Attitude Toward Work and Recreation.
- 1 Separation of the Two.
- 2 Courageous and Systematic Manner of Working.
- 3 Enjoyment of a Vacation.
- 4 Relation to Athletic Sports.

A similar outline may be made on "The Ideal Young Woman." Each pupil may be required to write on the one pertaining to the opposite sex.

The Recitation Period. It is needless to say that the skill of the teacher in conducting the recitation of the composition class is a very important matter, especially with beginners. As such pupils are usually lacking in self-confidence in this subject, it is well to overlook all but the most flagrant errors made in the first written efforts, and to offer favorable criticism whenever possible as a mere matter of encouragement. One of the best composition teachers ever known to the author required, during the first month or more, merely that the simple rules of procedure heretofore outlined be observed and that manuscripts present a neat appearance, certain simple, mechanical details being observed; such, for example, as those regarding the top and marginal spaces, and the capitalization of important words in the subject.

It pays to spend all the time that can possibly be spared in hearing the compositions read before the class. Thus pupils are given the opportunity to learn much from one another, and they are not at all slow in taking advantage of the opportunity. They may also be taught to criticise both favorably and adversely the written work of others. The teacher must not forget to elicit favorable comments by pupils upon one another's work; and he himself should have great aptitude in singling out the best features of every paper read. A happy choice of words, a nice distinction in the thought, a clear mode of phrasing—all such points of merit may be made much of and brought to the attention of the class. Correct and criticise manuscripts with reference to only one important matter at a time. Pupils will then gradually eliminate many of their own errors without the use of red ink.

Gathering Material. It is admitted that, while the pupil possesses sufficient ideas to serve the purposes of the mere rudiments of composition-writing, he will in time have to acquire the art of gathering material. The fund of knowledge of any subject, possessed by the pupil, is necessarily disorganized and fragmentary. Enough has perhaps been said about logical arrangement of the parts of the simple composition, so it remains now to suggest that the work of gathering materials be introduced gradually. The task becomes one of more clearly perceiving objects and of more logically relating facts. So the pupil may be directed in specific ways to go to the sources of knowledge. He

may be asked, for example, to re-examine an object with a view to describing it more accurately, or to re-witness, if possible, an event in order to narrate it, or to gather data by means of reading and inquiry. Careful resifting and rearranging of these materials must be required. One caution may be offered: It is easily possible to kill the spirit and interest in elementary composition-writing by requiring too much of this kind of preparation.

Study Good Examples. After a fair start has been made and the members of the class have become more interested in the work and more confident of their ability to write, it is well to examine with them some of the best available specimens of the traditional forms of literature. The well-known classics serve this purpose. In connection with the examination of good literature, some technical study of the sentence and the paragraph may be introduced. Such matters as the clearness, the effectiveness, and the coherence of the sentence may be taught better by example than by definition. The central idea, the unity, the length and the smoothness of the paragraph may be taught in the same manner. The pupils' knowledge of these technical matters comes by slow degrees through first-hand acquaintance and imitation. Abstract rules and definitions will be of little assistance.

Just as the child may acquire the ability to speak good English without knowing the rules of grammar, so may the young writer become relatively proficient in the use of description, narration, exposition, and argumentation

without having become acquainted with their technique. These various forms of composition may be brought out merely by the careful selection of themes. In order to bring about a closer acquaintance, it is well first to define the form to be considered and then to study carefully some good specimens of the same as found in literature.

After the pupil has become familiar with the characteristic method of each of the four traditional kinds of composition, his practice may go on pretty much as before; only now he is more than ever conscious of the manner in which he is to express his ideas.

Topics for Themes. It will, of course, be made apparent to the pupil that a literary production may make use of two or more of the four forms of composition, and that it is the exception, rather than the rule, for a writer to confine himself exclusively to one of them. Below are given some classified topics for short themes.

Description

1 Write a number of short notices suitable for the "want column" of a daily paper: (a) House for Rent; (b) Office Boy Wanted; (c) For Sale or Exchange; (d) Lost, a Pet Dog; (e) Opportunity for Investment.

2 (a) The Landscape as Viewed from My Window; (b) Cattle Grazing in a Distant Pasture; (c) A Small Stream with Borders of Ledges and Tree-clumps; (d) A Fruit Orchard in Full Blossom; (e) Birds Singing at Daybreak.

3 (a) A Distant Snow-covered Mountain Range; (b) The Niagara Fall Cataract as Seen from the Rocks Above; (c) The Appearance of the Ocean During a Storm; (d) The Sky at Sunset; (e) A Dew-covered Meadow at Sunrise.

4 (a) The Physical Appearance of a Tramp You Have Seen; (b) The Most Amiable Person You Know; (c) The Face and Manner of One You Love; (d) A Vain, Affected Young Person; (e) A Dirty-faced, Two-year-old Boy Crying.

Narration

1 (a) Waiting for a Train at the Railway Station; (b) What Happened on the Way Home from School; (c) A Building on Fire; (d) Yesterday's Baseball Game; (e) The Most Exciting Experience of my Life; (f) My Longest Journey; (g) At the Old Swimming Hole; (h) The Monotonous Events of a Day; (i) A Boy in a Hornet's Nest; (j) At the Party Last Night; (k) What Constitutes a Good Meal; (l) A Brief Story of My Life.

2 [Imaginative] (a) A Message from the Morning Star; (b) If the Sun Should Stand Still; (c) From Hong-Kong to Chicago by Airship; (d) Digging through the Earth to China; (e) Story Told by an Old Horse; (f) Lost in the Mountains [or Forest]; (g) A Shipwreck; (h) How I found my Way through a Great City; (i) A Home Among the Ants; (j) A Terrible Catastrophe [Tornado, Fire, Earthquake].

Exposition

1 [Boys] (a) Caring for a Horse; (b) How to Build a House; (c) How to Raise Good Corn; (d) The Best Way to Make Money on a Farm; (e) Essentials of Success in the Mercantile Business; (f) What Makes Football Exciting; (g) How to Manage a Sailboat; (h) Making a Bow and Arrow; (i) How to Sell Papers; (j) The Art of Hunting.

2 [Girls] (a) Keeping the House in Order; (b) Caring for Flowers; (c) Art of Preparing a Meal; (d) Making Pumpkin Pies; (e) Success in Giving a Party; (f) Outdoor Exercise for Girls; (g) Making Doll Clothes; (h) Hemstitching a Handerchief; (i) Points that Win in Basketball Players; (j) How to keep from Gossiping.

3 [Both Sexes] (a) The Art of Forming Friendships; (b) An Ideal Young Man [or Young Woman]; (c) How a Man's Work Differs from a Woman's; (d) Considerate Treatment of the Aged; (e) How I Expect to Realize my Ambition.

Argumentation

1 (a) Write a letter to the Board of Education giving a detailed argument in favor of a larger and better playground. (b) Make out a list of reasons for pupils' supporting the teacher in his efforts to govern the school. (c) Which is the worse evil, theft or lying? Give ten points in behalf of your opinion. (d) In what several respects is a literary society beneficial to a school? (e) A bright

young high-school freshman is about to give up school permanently for a place in the business world. Write a lengthy letter appealing to him to remain in school.

2 (a) Is It Better to Have Separate Playgrounds for Boys and Girls? (b) Can Final Examinations be Dispensed With? (c) Should Pupils Have a Part in the Government of the School? (d) Is Country Life Preferable to City Life for Young People? (e) Should the Game of Football Be Allowed in the Public Schools?

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CHAPTER X

ELEMENTARY MATHEMATICS

Numbers. Children, as a rule, quickly learn counting as such practice seems to fascinate them. Perhaps the chief fault of the ordinary teacher is not in the method used but in the rapid progress attempted. The power of the child to understand numbers comes gradually and concomitantly with other forms of mental activity. A wide experience in dealing with situations and objects and people will furnish a good basis for the beginning of numbers. In other words, the child who has had this manifold experience is capable of thinking of many concrete objects in relation to other objects, and these relations are often necessarily numerical. It is well, therefore, not to hasten the work of teaching numbers. Give the child time and opportunity to accumulate a wide range of juvenile experience and he will approach the subject of numbers with a rich fund of ideas more or less mathematical in their nature. Thus some of the so-called first problems in teaching numbers will disappear. The child will already know, for example, that numbers are not things and not qualities in things. If he wishes to count while yet a baby, let him do so, and direct him rather indifferently in the matter; but it is too early to make the work at all serious for him.

Make the First Lessons Concrete. Children usually enjoy keenly the mere rhythm of abstract, consecutive counting from one to a hundred. But the ultimate reference of numbers is to concrete things, and it is advisable to begin dealing with such things numerically from the very start. Let the learner count apples or books or boys or girls, and at the same time acquire some knowledge of addition and subtraction. The same psychological principle applies here as in teaching reading. The subject-matter should be of vital concern to his little mind. "How many kitties have you at home?" was the first mathematical problem propounded to a small six-year-old boy. "We did have six, but one of them died and now we have only five," was the ready solution given. How much better are such little concrete problems than are the purely abstract ones! Every child in the beginners' class, if old enough to undertake the subject understandingly, is able to make some such calculation as the one about the kittens. An undersized boy of eight just entering school was thought to be very backward in numbers until it was learned that he had spent the greater part of his life with his father in a fishing-boat. He was then found to possess an interesting fund of mathematical knowledge about the daily experiences of fishermen.

Instinct for Counting. There is doubtless a racial instinct for counting, which is a practice that has long been advantageous to mankind and hence an agency of progress. This instinct, like most others, brings pleasure with its indulgence. As the child learns to count he realizes a sense

of his power to make things subservient to his will and his little practical needs. But it is the tendency to count, and not the numerical concept, that is instinctive in the child. The latter comes only through relating things, and this implies an act of discrimination or analysis. A specific object before the senses does not mean specific knowledge in the mind as a result. Three cubes may lie in plain view of the child, but that fact gives no assurance of their cognition by him. He must be able to see these objects as separate units in a larger whole, or group. The teacher, as director, but not necessarily the child, must be conscious of the process here involved.

A Definite Aim. Even in the case of beginners in counting or measuring, the teacher must set out to accomplish something definite. The child's first consciousness of objects is of wholes or groups, and the second step is naturally one of analysis. The problem may be one of enumerating the windows in a room or the squares in a table top. In every such case the young mind passes from knowledge of the whole (unity) to knowledge of the parts (units). Finally the mind reverts to the object first attended to, the whole. Out of this forward and backward process the child gradually develops his conception of number.

Start out, then, to count or measure something concrete rather than to count abstractly. It is perhaps better to have a unit of measurement which will itself yield readily to analysis. Take, say, twelve crayons and arrange them in four groups of three each, or a gallon measure and four

quart measures. Let the child count the number of measuring units (groups) in the whole number of crayons, or the number of units (quart measures) filled from the whole gallon measure. Now, the psychological order of movement of the learner's mind would be (1) to observe and name the whole (dozen crayons or gallon measure); (2) to observe and name the measuring units (groups or quart measures), and (3) to recognize the fact that the units of measure in either case are identical. The third step is really one of analysis of the unit. Each group or bunch of crayons seems to consist of three, and each quart measure to be of the same size, or to contain two pints.

Developing the Abstract. While it is both advisable and possible to begin the work of counting with familiar, concrete things, it is an easy matter to draw the child-mind aside by slow degrees into abstract conceptions. It is necessary to do so if the work is to go on rapidly, and to continue to teach numbers concretely too long is just as erroneous as to continue the use of baby-foods for bodily nourishment too long. It will soon be seen that what the child needs is much practice in performing the simple arithmetical operations. Give him rapidly and repeatedly all the possible combinations of the digits taken two at a time, together with all possible subtractions of the same. The child must know that $7+5=12$, and know it at once and without effort. When he once knows this fact thoroughly he will not be conscious during the operation of adding seven sticks and five sticks, or seven and five anything else. But while the addition is being performed

automatically he will most probably have an image of how the figures look when seen, or how their names sound when spoken.

And now comes a test of the teacher's ability to direct the pupils in this work with the minimum of time and effort, and the secret of success lies in teaching the child to drill himself by carefully going over the process again and again. This is the latter's first lesson in method. In this connection the 1-10 and 11-20 combinations may be learned:

(1) $\frac{1}{1}; \frac{1}{2}; \frac{1}{3}, \frac{2}{2}; \frac{1}{4}, \frac{2}{3}; \frac{1}{5}, \frac{2}{4}, \frac{3}{3}; \frac{1}{6}, \frac{2}{5}, \frac{3}{4};$

$\frac{1}{7}, \frac{2}{6}, \frac{3}{5}, \frac{4}{4}; \frac{1}{8}, \frac{2}{7}, \frac{3}{6}, \frac{4}{5}; \frac{1}{9}, \frac{2}{8}, \frac{3}{7}, \frac{4}{6}, \frac{5}{5}.$

(2) $\frac{2}{9}, \frac{3}{8}, \frac{4}{7}, \frac{5}{6}; \frac{3}{9}, \frac{4}{8}, \frac{5}{7}, \frac{6}{6}; \frac{4}{9}, \frac{5}{8}, \frac{6}{7};$

$\frac{5}{9}, \frac{6}{8}, \frac{7}{7}; \frac{6}{9}, \frac{7}{8}, \frac{7}{9}, \frac{8}{8}; \frac{8}{9}, \frac{9}{9}.$

The child must (1) be shown carefully how to find the answer by counting some such things as pencil marks, and (2) be induced to go over the problem in mind several times rapidly so as to fix it there. To go on to the next problem immediately after securing one answer by concrete counting may be the most natural thing to do, but it is also the wrong thing. The point that tells here is to think the problem as a unit, so that it may be fixed in memory. There must be a clear image of how 7+5 either looks or sounds, or both. An actual investigation will show, I believe, that more children depend upon the auditory than depend upon the visual image in numbers. Let the teacher

give attention to this matter of images in counting and he will find some pupils who have to hear themselves or some one else actually say "seven and five" before they can give the answer to the written problem. Others will have to see the figures written before they give the answer to the spoken problem.

Back to the Concrete. After this series of simple-digit computations is thoroughly memorized abstractly, there should be a return to concrete facts for practice in the application of numbers. The word "facts" is here used advisedly, for the more the teacher knows about prices and values and accounts, the greater the worth of the simple problems he can now make up for the child. The book may furnish problems dealing with these matters, but they seem so abstract and foreign to the child's interests when compared with those arranged by the teacher. A few simple money problems will not be out of place here if they are related to transactions of common, every-day interest.

More Advanced Work. The pupil will not be required to master each step in numbers before taking up the next one. The work in simple counting and measuring is really the beginning of addition and subtraction, while formal work in the latter two becomes an introduction to multiplication and division, their abbreviated forms. But the child's first lessons in conscious subtracting must be in connection with concrete things, the abstract being gradually introduced as before. So, as in the case of counting or adding the child was led to see that he was dealing with like units,

he now observes that the essential thing in multiplication is to get a result of the same kind of units as that with which he started, the multiplier being abstract. In beginning the work of division, be careful to name the concrete units. If, for example, the problem be to divide six crayons into two equal groups, the result is not three, but three crayons. That is, six crayons divided by two gives three crayons. But, supposing a boy is to spend ten cents for pencils at two cents each; required the number of pencils bought. The solution then proceeds thus: Ten, the total number of cents, divided by two, the number of cents each costs, gives five, the number of pencils.

Fractions. A good way to develop the idea of fractions is to cut a number of disks of different sizes out of paper. Now divide one of these equally, placing one half upon the other, and show the equality carefully. Cut another into two unequal parts and show wherein it is unlike the first one. You may have to say to the child, "These two are just about the same size. They are *equal* parts. If you cut anything into two equal parts, one of the parts is called a *half*." Proceed in like manner with thirds and fourths, showing finally that there are two halves, three thirds, etc., in anything. In connection with this work teach notation and enumeration of simple fractions. Common fractions should precede and introduce decimal fractions. The pupil who understands the meaning of one third, will soon grasp the meaning of one tenth, and he will easily be led to see that the denominator is now determined by

the decimal point. There is one presupposition in teaching decimal fractions not as yet mentioned, viz., notation and enumeration of integers, and these operations, rightly conducted, must also proceed from the decimal point. After common fractions have been presented carefully, it would not be illogical to introduce decimal notation and enumeration along with these operations with integers. The child can then learn units, tens, hundreds, and units, tenths, hundredths with equal facility.

Arithmetic. Some of the practical difficulties met with in teaching arithmetic are these: (1) The teacher very frequently is a person who has had little experience of a business, or a commercial, nature. Hence his knowledge of the subject has been acquired largely by memorized rules, and he will so impart it to others. (2) Pupils are too often permitted to lose sight of the main issue in their eagerness to secure the answer. (3) The hurried effort to secure the answers, to solve all the problems given by the text, and to finish the book at a given date—all these result in a tendency to extreme carelessness in methods of solution and explanation.

The Aims. First of all, then, what are some of the practical ends to be sought in teaching arithmetic?

Readiness of skill in the fundamental operations is certainly a requisite as a basis of further procedure. The pupil must be able to add, subtract, multiply, and divide numbers readily. He must know his multiplication table well, and must not be dependent upon paper and pencil

for solving every little problem. The fact is, teachers are themselves too apt to be thus dependent, and it may now be too late to correct the fault. But the young student who is held to the task of performing mental solutions will in time outrank his fellows who are not. It may not in most cases be practicable to teach mental arithmetic as a separate study, but it may and ought to be taught in connection with written arithmetic. Let there be insistence upon a rigid, logical analysis of enough problems to familiarize the pupil with the method, and he will learn to enjoy such work. Whenever this work is first introduced, pupils are disposed to wince under the pressure that is necessary to hold them to its performance. Now, here is a point whereat the ways separate. Weak teachers will permit pupils to mumble out a few broken statements in connection with the answer, and then give the undertaking up as a hopeless, profitless one. But the persistent, decisive instructor will proceed as described above and win a victory for both himself and the pupils.

It is advisable that the young teacher secure a text in mental arithmetic for his own use in order that he may have correct models of analysis.

Thorough acquaintance with principles rather than the mere solution of many problems is certainly an end to be much desired. Therefore, take time to explain, to exemplify, to illustrate principles. This work the teacher must do carefully and patiently whenever a new principle is to be introduced. It is well here to be reminded that

pupils will commit a rule to memory and apply it successfully without understanding the principle involved. Such work is mechanical, however, and just as soon as the rule fades out of the verbal memory, the entire task is undone. But once the student understands the principle thoroughly, he can reconstruct the rule even after it is forgotten. For illustration, take the rule for finding the area of a triangle: Multiply the base by the altitude and take one half the product. But why multiply the base by the altitude? and why divide the product by two? The pupil has a right to ask these questions, and of course, the intelligent teacher will approach the answers to them inductively. That is, he may draw a rectangle, say five by eight inches, and after marking it off into one-inch squares draw a diagonal, forming thus two triangles. Or, perhaps better, he may have the pupils do this work under his direction, thus leading them to discover the principle and to make the rule at the same time.

A third aim in arithmetic is to increase the pupil's efficiency by means of requiring of him in every instance a clear and logical method of solution. If the pupil be permitted continually to present only enough figures to show how he acquired the answer he will soon develop an interest in the answer alone.

PROBLEM 1: Find the cost of twelve pieces one-inch finish lumber each 8 inches wide and 16 feet long, at 4½ cents per foot.

Solution: Four and one-half cents per foot means 4½ cents per square foot of one inch in thickness. Then—

1 12x16x⅔ sq. ft.=128 sq. ft.

2 128x$0.045=$5.75, cost.

PROBLEM 2: Sold a tract of land 42 rds. long and 40 rds. wide at $60 per acre. How much did it sell for?

Solution:

1 40x42 sq. rd.=1680 sq. rd.
2 1680÷160=10.5, no. of acres.
3 10.5x$60=$630, selling price.

There is no justification in the statement "42 rd. x 40 rd.=1,680 sq. rd.," although some text-books and many teachers make use of such careless expressions. Another way of stating the first step in Problem 2 might be, 40x42=1,680, no. of sq. rd. Notice the comma after 1,680.

If teachers would only insist on pupils' bringing their work to class written out in this careful manner, the problems could be copied on the blackboard in a very few minutes and nearly all of the recitation period could be devoted to explanations and discussions.

PROBLEM 3: Bought 1000 bu. of potatoes at 72c. After they had shrunk 5% I sold them for 85c, paying $7.50 for handling. What was the per cent gain on the investment?

Solution:

1 1000x$0.72=$720, cost.
2 1000 bu. x .05=50 bu., loss by shrinkage.
3 1000 bu.—50 bu.=950 bu., net amount.
4 950x$0.85=$807.50, selling price.
5 $807.50—$7.50=$800, net receipts from sale.
6 $800—$720=$80, net gain on investment.
7 80÷720. .11 1/9=11 1/9%, gain.
8 Formula: P÷B=R.

Now, this may not be the best method of solution, but it is at least logical and systematic. The reader may obtain better results by varying the process somewhat. But the chief issue here is this: Is it not manifestly more profit-

able to occupy the entire recitation period in solving one representative problem in some such manner, than it is merely to test the correctness of the answers to ten problems? It is wholly the fault of the teachers that pupils develop the answer-seeking habit at the expense of the method of solution. If, upon taking charge of a school for the first time, one finds this bad habit prevalent in arithmetic, he can break it up by the careful method suggested above, and by changing one of the factors in each problem so that the answer given in the book will be an incorrect one.

Pupils must have an interest, either native or borrowed, in any work that they undertake. The interest in obtaining mere answers is perhaps native, but it is the same childish disposition that finds satisfaction in cheap puzzles. The interest in the process of solution is a higher one, and it will develop as the work of solving arithmetical problems goes on systematically. In fact, if the teacher be himself rightly trained, his own enthusiasm in behalf of this better method of teaching will soon become contagious among his pupils. They will be quick to discern what he values most highly in the process of the work, and, after sufficient practice, they will take the same kind of pleasure in presenting a clear, logical solution of a problem as they naturally would in drawing a good picture.

The Special Subjects. If the school is not so fortunate as to have a good, practical text in arithmetic, the teacher must make the poor one such by supplementing and rearranging the exercises. Even the best text-book requires

some adaptation in order to be made more serviceable. It is not advisable to undertake the solution of all the problems given, but it is well to select from among the whole number such as are most practical. Problems relating to the purchase of drygoods, groceries, clothing, and house furnishings are more suitable for intermediate grades than are those relating to such matters as stocks and bonds. Very few common-school teachers seem to understand the latter subjects, and by those who fail to grasp them they had better be omitted.

Difficulty arises whenever there is an attempt to teach these subjects merely by the book rules. The most sensible way for an instructor to master them—since he cannot expect to have transactions in commission and brokerage and stocks and bonds—is to go among those who have such dealings and inquire into their methods carefully. An examination of the forms of business paper used will furnish much valuable information. And then, by asking to be shown in detail just how each person concerned is related to the transaction, one can secure a fairly comprehensive grasp of the matter. By all means, let the inquirer learn the real significance of such terms as discount, market value, par value, brokerage, commission, coupon, exchange, invoice, and premium.

For explaining problems in mensuration a set of blocks should be brought into use. Tri-dimensional figures cannot well be represented to immature pupils by means of pictures. These blocks give the learner actual experience in

measuring, and thus furnish a necessary aid to memory. In square root and cube root it is very important that involution precede evolution. That is, actually build up the squares and the cubes, then take them down by means of the blocks. For example:

$$25^2 = (20 + 5)^2 = 20^2 + 2\ (20 \times 5) + 5^2$$
$$= 400 + 200 + 25$$
$$= 625$$

Formula: $(t+u)^2 = t^2 + 2\ (tu) + u^2$

Again:

$$25^3 = (20 + 5)^3 = 20^3 + 3\ (20^2 \times 5) + 3\ (20 \times 5^2) + 5^3$$
$$= 8000 + 6000 + 1500 + 125$$
$$= 15625$$

That is: $(t + u)^3 = t^3 + 3\ (t^2 \times u) + 3\ (t + u^2) + u^3$

After sufficient practice in this work the inverse processes of square root and cube root will become easy for the pupils, as they will have meaning for them. The rule of procedure will not have to be committed to memory, since the pupils can reconstruct it at any time.

Exercises

1 With a good ruler in hand show beginners how to measure length and width and height of such familiar objects as tables and desks.

2 Have pupils procure penny rulers and make such measurements themselves. See that they do the work accurately from the first.

3 Provide cubical blocks that may be arranged in cubes and otherwise for computations in relation to tri-dimensional

forms, but do not try to take beginners very far into this matter.

4 Have tin cups or buckets ranging in capacity from a half-pint to two gallons. By means of these teach some practical lessons in arithmetic and also make pupils familiar with their size.

5 If at all practicable, do a similar thing with vessels relating to dry measure. Young people can never learn how big a half bushel or a bushel measure is till they *see* one. Some teachers are not themselves very reliable in regard to these units of measure.

6 Provide also, if possible, a pair of cheap scales and various weights to be used in illustration of the apothecaries' and avoirdupois tables.

7 Mark on the wall above the blackboard the linear units up to and including the rod. Stake off on the play-ground a square yard, a square rod; and if there be room, measure off a one-acre plot.

8 For more advanced classes bring up the consideration of the sizes of various tracts of land of larger dimensions by reference to familiar gardens, orchards, and farms.

9 Teach in a similar manner the proper conception of a quarter-mile, a half-mile, and a mile by reference to such distances that have been actually gone over by the pupils. These lessons, if well learned, must all come through experience.

10 For advanced classes procure from business men every kind of commercial paper obtainable, such as can-

celed notes, bonds, stock certificates, insurance policies, mortgages, and tax receipts. Have pupils examine these papers carefully in connection with the study of the subjects to which they are related.

Elementary Algebra. If arithmetic is to be well mastered, the young student will scarcely be ready to take up algebra in earnest before he has finished the eighth grade. However, a number of simple algebraic solutions in the form of problems involving one unknown quantity may be introduced during the last half of the eighth year. This will be done, of course, in connection with the work in arithmetic.

Nature of the Subject. Elementary algebra is, roughly speaking, a generalization of the rules and principles of arithmetic. It enlarges the scope of the latter subject especially, (1) by the use of many new symbols, (2) by the introduction of the negative number, (3) by facilitating and rendering exact the use of the surd number, and (4) by developing extensively the idea of equation.

Algebra deals with a form of symbolism more abstract and vague than that of arithmetic, in that the values for which the algebraic symbols stand are shifting and often unthinkable. Many of the problems of the old-style arithmetic were algebraic in character, but the modern text very properly renders such puzzles easy of solution by means of algebra. In the use of the various symbols—of relation, of aggregation, of omission, and of logical inference—the pupil usually has little difficulty, with the excep-

tion of the second class mentioned, which includes the parenthesis ( ), the bracket [ ], the brace { }, and the like. It is necessary that much drill be given in the use of these, so that the work of simplifying complex expressions may be made easy and mechanical. Much of the failure of students in factoring algebraic expressions is due to lack of drill in the use of these same symbols.

The conception of a negative number is at first somewhat difficult for the pupil. The new meanings of the signs + and — now have to be taught, and no better method can be used in introducing the double series of quantities involved than that of applying these signs to some familiar terms used in arithmetic. Losses and gains, scales on the thermometers above and below zero, longitude and time, and the like, will furnish suitable illustrations of the new conception to be acquired, i. e., that of a negative quantity. Addition and subtraction may be conceived of at first as processes of securing net results. Thus the double meaning of the signs plus and minus can best be taught by means of many simple problems. The young instructor had better be satisfied at first with teaching the beginner the "how" rather than the "why" of the negative quantity.

The student of arithmetic has very little experience with the surd quantity excepting in the case of square- and cube-root. After he has learned how to generalize the arithmetical problem by means of the familiar symbols x, y, a, b, and the like, he will experience a further pleasing enlargement of his power over numbers by finding that the

supposedly irreducible surd quantity can really be used as a definite, exact factor in many interesting problems. In order that the nature of the surd may be sufficiently understood by the young pupil, it is necessary only that he be given much drill in its various uses.

In elementary algebra much attention must be given to fixing in the mind of the student the idea of the equation. The master of the equation is master of the science of mathematics, as it is the key which unlocks the whole. Unfortunately, the equation is ordinarily little used by teachers of arithmetic. On account of the symbolism, with which he has so recently become acquainted, the beginner in algebra is slow to realize the meaning and the importance of the equation, but he must be led to see that every problem must first be stated in terms of one or more equations, that it must be solved by means of his tracing out relationships among its several equations, and that it must end in an equation.

Theorems in Multiplication. These theorems must be thoroughly committed to memory while there is being given much practice in their application. For example, take theorem 1: The square of the sum of two quantities is equal to the square of the first, plus twice the product of the first and the second, plus the square of the second. Ordinarily students will find no difficulty in the application of this theorem as long as the two quantities are simple monomials, but as soon as the problem is made complex there is almost certain to be trouble. For illustration, the learner will

perform at sight the operation indicated by $(a+b)^2$ or $(m^2n+mn^2)^2$; but $[(a+b)+(m+n)]^2$ is almost certain to prove a puzzler.

There is a mental act involved in the operation last indicated which is fundamental to the whole course of algebra, viz., that of recognizing the type in its disguised form. The author has no hesitancy in offering the opinion that the greatest stumbling-block to progress in mastering the principles of elementary algebra is found in relation to this very matter. The mental act required in such cases is so new to the average beginner that he cannot get on well without some very specific assistance. The shortsightedness of instructors is very common at this point, also. Yet the rule of procedure is a simple one, even though overlooked by the teacher. It is this: Analyze the expression, or cause the student to do so. The theorem says, "The square of the sum of *two* quantities, etc." Now, what are these two quantities? What is the first? What is the second? Point to the sign that indicates the *sum* of these quantities. The first quantity is $(a+b)$; the second is $(m+n)$. The sign asked for is the $+$ standing between these two quantities. Let the teacher insist on having these questions answered in the case of every such problem until the student can distinguish at sight the type that is hidden in the most complex example. After the task of discrimination has once been thoroughly mastered, the student has the key to the understanding of practically all the elementary principles of algebra. The problem given above

will then be solved as rapidly as the student can write the expression, as follows:

$$[(a+b)+(m+n)]^2 =$$
$$(a+b)^2+2\ (a+b)\ (m+n)+(m+n)^2 =$$
$$a^2+2ab+b^2+2am+2bm+2an+2bn+m^2+2mn+n^2$$

Similar Operations. The method to be pursued in the applications of other theorems of multiplication and those of division as well is illustrated, or at least indicated, above. It is simply necessary for the teacher to understand the psychology of mind development; to understand, for instance, that the mind does not acquire new data in masses or complexes but by piecemeal. The mind of the student who is first acquiring the meaning of these theorems is analogous to that of the child who is looking for the first time at a picture. The elements must be pointed out to him singly, and named.

Factoring. One of the most important topics in elementary algebra is factoring. This discussion is already too extended to warrant a detailed consideration of the matter, but it is hoped that a clue to successful work in factoring has been given above. If the student understands clearly just what he is doing in applying these theorems, will he not perceive readily just how the expressions to be factored are built up? This itself is the first and most important step in factoring, for the work of taking apart what one has understandingly put together is almost mechanical.

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I

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2 ROARK: *Method in Education* (American Book Co.); Ch. XVII, "Number: Arithmetic."

II

1 DE GARMO: *Essentials of Method* (Heath); pp. 114-120, "Practical Application of Arithmetic."

2 GORDY: *A Broader Elementary Education* (Hinds & Noble); Ch. XXV, "The Educational Value of Arithmetic."

III

1 HARRIS: *Psychological Foundations of Education* (Appleton); Ch. XXXVII, "The Psychology of Quantity."

2 MCLELLAN & DEWEY: *The Psychology of Number* (Appleton). This book is an advanced treatise on the subject.

CHAPTER XI

ART AND INDUSTRY

Drawing. We hear not a little about art for its own sake, but it is quite a sufficient matter to urge that drawing be taught in the public schools for the sake of feeling and conduct. The child that is carefully directed through a course in this subject is thereby given opportunity to build up within his own nature a refined, artistic taste, and as a result he will know something in detail about singling out and enjoying the beautiful in his everyday environment, while he will learn at the same time to dislike and to shrink from the ugly and degrading. The higher type of æsthetic appreciation produced in him will bring as its natural consequence a higher, more praiseworthy type of conduct. "The secret of noble living is noble thinking."

Speaking of drawing as a practical discipline, Dr. A. E. Winship says: "Such interested attention to the eye, the hand, the thought, as is given in the teaching of drawing, develops skill to earn more as an artisan, to expend it more wisely, to take better care of one's material possessions, to have higher ideals of personal life and public effort." He says further that in communities where drawing is taught, we find "the maximum of skilled labor, the highest

wages, the most social stability, and the most civic progress."*

The Child's Nature. Before endeavoring to instruct a child in any subject whatever, it is necessary to consider his nature. Will this proposed instruction supply an actual need growing out of the child's natural unfoldment? Will it readily become part and parcel of his vitalizing experience? If so, then, his response will be quick and spontaneous and, under suitable conditions, the results will be most satisfactory.

Is There an Instinct for Drawing? It would probably not be quite true to say that there is an instinct for drawing, but to say that drawing is, in its beginnings, a mode of expressing an instinct—the play instinct—is doubtless nearer the truth. It has been shown conclusively, of late, that play has served a great purpose in the development and preservation of many of the higher animal species, including man. The play instinct is especially strong in the human infant, but this instinct manifests itself impulsively; that is, it takes no definite direction until guided by conditions in the environment. This play impulse has many possible modes of expression, and the child's first experience in drawing may very appropriately be made one of them, provided only that the teacher understands the nature of the case. There are three natural periods for drawing in the life of the child, and they may be termed: (1) The Imaginative; (2) The Coördinative; (3) The Æsthetic.

* *The School Arts Book*, Feb. '06.

The Imaginative Period. The child's first efforts at drawing are in response to the play impulse and are characterized strongly by the element of make-believe. During the imaginative period—which under favorable circumstances may be extended to the tenth year—the imagination is very active; and, from his own point of view the child is especially engaged in expressing his ideas. He is, therefore, at his best when proceeding under little restraint and adverse criticism. The expression here is distinctively one of impulse guided by imagination, and the practical result is gradually acquired control of the hand movements. Children take keen delight in this early, crude picture-making, partly because of the attending increase in the sense of power to express the self. There is just one way in which the teacher may, and often does, reduce this spontaneous practice to that of flat, dull drudgery, and that is to point out to the child too soon and too rapidly the errors he is making. Once the young artist's mind becomes diverted from the idea he is expressing to the mere form of his picture, all the charm is gone, and from that time on the practice of drawing is a grind. You may draw for him simple copies better than his own and he will unconsciously imitate the better forms and profit by them, but do not kill his spontaneity by pointing out his mistakes too abruptly.

Proceed Slowly. It being necessary to give the imagination free rein, and to preserve spontaneity, we may well inquire as to what the function of the teacher really is during this first stage of progress. It is to supply the child's

imagination with proper materials, and to furnish by slow degrees corrections of the drawings produced by the latter. It does not matter so much what the child attempts to draw at first, provided only that it may be represented by a simple, rough outline. The first picture may be of a person, a cat, a chicken, a house, or any other familiar thing. The teacher may have to furnish the first sketch, but it is better to induce the pupil to do so, if possible. The beginning will then be natural and from the latter's point of view. The young artist will be inclined to draw rapidly at first, and to produce many copies of the same thing. The latter tendency will give the instructor an opportunity to guide the youthful hand in the production of a more perfect copy.

Let us assume that the pupil has just drawn a crude outline sketch of a house. The teacher will draw one much like it, only with slight improvement as to form, which the learner will readily but unconsciously imitate in the course of a few more trials. The latter will then be ready for another slightly improved copy. This alternation of pupil and teacher is the true psychologic method of the imaginative period in drawing, at the end of which the pupil will have approximated the perfect outline copy of the pictures attempted, and he will have gained not a little control over his hand movements. The true teacher is never impatient with the child's imperfections in any form and perhaps least of all with his awkward attempts at art. Looked at rightly, these crude pictures are beautiful and

inspiring representations of an innocent soul gradually finding its way out into the light.

Subjects for Imaginative Period

Have pupils make bare outline sketches of their ideas about such familiar objects as those mentioned below. Pay some attention to the seasons of the year and permit some use of simple colors, teaching at the same time, of course, the cardinals, R. O. G. Y. B. V.

Spring

Grass-blades, raindrops falling, familiar birds, little chickens, simple blossoming plants, child under umbrella in rain; crude outlines of people, dogs, cats, rabbits, donkeys, leaves, trees, barefoot children, bridge over stream, silhouettes, ball and bat, teeter-board, swing, marbles.

Summer

Trees bent by wind, garden vegetables, birds on nest, boat on water, flowering plants appropriately colored, corn- and other grain-stalks, trees, a picnic basket, fishing-rod and line, boys fishing, cows or horses in pasture, other animals, sunrise, sunset, moon behind the clouds, cherries, strawberries.

Autumn

Haystacks, load of hay, fruit on trees and vines, corn on stalk, cotton, leaves colored by frost, autumn vegetables, melons, pumpkins, football, basketball, squirrel in tree, migratory birds on wing, corn in shock, boy in tree gathering nuts, the schoolhouse, boys and girls on their way to school.

Winter

Snow man, children skating, coasting, sleighs, stone fence, leafless trees, Esquimo house, evergreens, snowflakes, snow falling, rabbits, o'possums, wolves, bears, fire in grate, load of coal, snow-birds, Christmas tree, Santa Claus, houses for various domestic animals.

Miscellaneous List

Animals seen in menagerie, steam railway engine, street-car, bicycle, motor car, houses, telephone poles and wire, Indian wigwam, waterfall, rocking-horse, simple valentines, hats, shoes, articles of furniture.

The Coördinative Period. This period may be assumed to cover the ages from about ten or twelve to fifteen years, and within it the practice of drawing partakes of the nature of work to the pupil, whereas, during the imaginative period his attitude toward drawing was more one of play. A widely extended inquiry has shown that usually children have practically no interest in drawing during this second period, but it is believed that the method outlined above will tend to preserve at least some of the interest of the first period for the second.

The New Mental Attitude. The pupil now knows what a good model is, and he is aware of the necessity of his making true copies. The attention must now be centered upon form, while the chief problem is one of closely coördinating mind and hand. The pupil's perceptive powers are more fully developed, so that he can appreciate

much more of detail. True pictures and real objects may now be set before him as models, while he is given some specific instruction in the matter of light and shadow and, later, in the beginnings of perspective. Wisely extended investigations show that the creative tendency is weak during the coördinative period, and that imitation must be depended upon chiefly. This is probably the best time to place before the child suitable pictures to be copied.

In the selection of pictures or designs to be copied it is necessary to observe two or three matters carefully. Assuming that the pupil has had the practice outlined above for the imaginative period, he is now prepared to understand and copy pictures showing considerable detail. However, too much complexity will confuse and discourage him and it should be avoided. A second suggestion is that the pictures to be copied should be suited to the learner's interest. It is a good plan to place a number before him and let him select the one he desires for a model, remembering that nothing is too difficult for him if he actually feels an inner need to draw it.

Subjects for Coördinative Period

1 Use many of the subjects listed for the imaginative period, with the addition of more detail.

2 This is an imitative, but not an imaginative period, so have pupils study pictures with a view to making true copies.

3 With mounted specimens or pictures as models

require pupils to make drawings of birds, coloring them appropriately and reproducing, if possible, a portion of the natural environment.

4 Follow suggestion in No. 3 with regard to animals, giving special attention to making the appearance lifelike.

5 Give practice in drawing straight, curved, horizontal, perpendicular, oblique, and parallel lines, also the circle and the many two-dimensional geometrical figures.

6 Copy and color various designs for souvenir cards, calendars, fancy-work and chinaware.

7 Draw from objects such articles as vases, dishes, flower pots and stands, chairs, chandeliers, grilles, lattice-work, colored-glass windows.

About the only inventional work suggested for this period is that which will assist in the study of elementary geography—a subject which pupils of this age are presumably taking up. In this connection attempt the following:

1 Make a cross-line drawing indicating the cardinal points of the compass.

2 Draw a picture of the mariner's compass, explaining its nature and purpose.

3 Draw a globe showing the equator, the poles, the zone divisions, and the important longitudinal lines.

4 Draw map of schoolgrounds, of a town square, a park, and fairgrounds, showing principal buildings and other objects located thereon.

5 Draw maps true to a scale requiring careful practice in use of ruler in such work.

6 Draw simple map of the home county, the home state, and finally the United States, locating important buildings, cities, rivers, mountains, lakes. Likewise draw maps of the various states and continents.

7 Draw a series of maps of the home state and the United States, each one for a single, specific purpose, such as to locate an important industry, an agricultural or mining-product, waterways, transportation lines, mountain ranges, Indian reservations, and the like.

The Æsthetic Period. If properly trained the young artist has now arrived at a degree of proficiency which enables him to appreciate consciously some of the finer meanings of the work of drawing. The new awakening occurs ordinarily at the age of thirteen years in girls and fifteen in boys, or the beginning of adolescence. The revival of interest will be slow but gradual from this time on, and its signs of permanence will be marked by the learner's reflective attitude of mind and by his increasing fondness for constructive work. In addition to his hand, trained and submissive to his will, and his perception, keen and alert, he will now have the power of interpretation.

Little Direction Necessary. As the pupil advances under careful instruction the necessity for direction grows less. During this third period it is required only that the teacher give occasional suggestions and encouragement by way of pointing out the more obscure meanings in pictures, and by reference to some available literature on the subject.

In case of actually original work the pupil will, of course, often have to be told what to attempt, while in mechanical drawing some of the rules and principles will require explanation.

Subjects for Æsthetic Period

1 Use many of the subjects suggested for the imaginative period, requiring in connection therewith original work.

2 Have original designs plotted for school gardens, home gardens, lawns, fruit orchards, city parks, flower-beds, barnyard buildings, and fences.

3 Solicit original designs for table tops and covers, paper napkins, table covers, inlaid work, handkerchief borders, paneling, brackets, grilles, wood-carvings, mantels.

4 Call for new designs for post cards, valentines, Christmas cards, monograms, pennants, class and school mottoes, program cards, fancy lettering, calendars, Easter cards, and the like.

5 Require original illustrations for Mother Goose rhymes and "Robinson Crusoe" and other stories. Relate a story, requiring pupils to retell it by means of pictures.

6 Occasionally have compositions illustrated with drawings. Encourage pupils who have a talent for such work to make cartoons of interesting school events.

7 Give some of the simple rudiments of drawing plans for dwelling-houses, schoolhouses and other buildings.

8 If time will allow give some technical instruction in perspective drawing.

The School Garden. As yet our course of study for common schools is very one-sided. It places too much stress upon books and not enough upon experience of doing. If the methods and material of the kindergarten could be applied seriously as supplementary to the book work now offered in the grades between that and the high school, the golden age of experience-getting, now largely wasted, would be used to great advantage. There is a crying need in every common home and in every common school, of a kind of training that will tend to blend the arts and crafts in every individual. Our artists know too little of the life of the artisan, and our artisans possess too little of the perspective of the artist.

Meaning of Manual and Industrial Education. It is a narrow, imperfect view of either of these kinds of training to regard it as merely preparation for making a living. In case of children and youths it must be regarded not as training for self-support, but as education for self-development, which will most certainly result in self-support and many other splendid achievements as well. First of all, the physical activities necessary under the conditions herein named will result in corresponding nerve structures. Secondly, the interests of the growing child must be gradually centered in people, products, and industries. "Manual training introduces our youth to a sympathetic understanding of the constructive activities which constitute so

important a part of our contemporary life," says Professor Paul Hanus.*

Thirdly, in the course of manual and industrial training the pupil is orienting himself; that is, acquiring the rudiments of many trades and occupations and developing latent forces which would otherwise go to waste, and which will in time enable him to achieve the highest purpose for which his life is inherently suited. Lastly, and to summarize, this kind of training properly conducted means, on the part of the learner, self-development, self-control, self-support, and self-respect.

What Can Be Accomplished? The question that we must now consider is: What under present conditions can be accomplished by way of industrial training in connection with the common schools? It is believed that a school garden is the most reasonable thing to consider. Boards of education can, with little expense, provide a plot of ground within easy reach of the school. In country districts it may lie adjacent to the playground, and in towns and cities it may consist of one or more vacant lots.

Management. While the school garden may be under the supervision of the board of education, it may be immediately superintended by the teacher or principal of the school. Some mature pupil may be appointed foreman of the entire garden force, or the pupils may work in squads each under its own foreman. Have a regular time for tending the garden. A half-hour to an hour after school on

* *Atlantic Monthly*, Jan. '08.

pleasant afternoons will perhaps be sufficient. The same orderly method should be insisted upon as is applied to any of the other school work. The ideal arrangement will provide for a plot of ground for each member of the school above a certain grade, the very young pupil being attached to some older one as a helper. Careless methods and poor management will destroy the effectiveness of the garden work as readily as that of any other undertaking in school or out. There is no good reason why the gardening may not be a required part of the school work.

Plotting the Ground. Each pupil should be allotted two hundred to five hundred square feet of ground. Make the plots, say ten feet wide and twenty to fifty feet long, the length running north and south. Make the division paths, or aisles, not less than eighteen inches wide and the main passageways about three feet. The best way to make out a suitable garden plot is to give the data—amount of land available, its dimensions, and the number of pupils—to the members of the advanced drawing-class, as suggested above, and have them work out the plan or design in detail. Thus art and industry go hand in hand.

Preparing and Planting. The rough work of preparing the ground should be done by men, but all other work may be assigned to the pupils. Let each one have his own set of garden tools—not toys—which are kept clean and dry in a common tool-house. See that all rubbish is cleared away and the surface soil thoroughly mulched. The teacher or foreman will easily obtain and give detailed instructions

as to depth of planting, amount of seed necessary, and width of rows apart. Run the rows east and west, or the short way of the plot, and place the tallest-growing produce at the north end. Plant only common and easily-grown garden seeds and especially such as will mature an early crop. Devote about one fourth or one fifth of each plot to flowers.

Care and Handling. Allow no weeds to grow in the garden, and give attention to surface draining in wet weather and to conservation of moisture by mulching in dry weather. There are various interesting ways of disposing of the produce. One way is to allow each pupil to take his own part of it home for family use. In such case the parent should pay suitably for it, in order to encourage thrift and economy in the child. Another way is to take each kind of produce in its season to the open market, and to give each child his own share of the net proceeds. The money may be disposed in the school savings bank, if there be one.

REFERENCES

I

The School Arts Book (The Davis Press, Worcester, Mass.). For the work in drawing, the teacher will find this an excellent publication.

The firms given below can furnish almost every kind of art material that the teacher may desire:

The Palmer Co., 50 Bromfield St., Boston, Mass.
The Prang Educational Co., Chicago, Ill.
G. P. Brown & Co., Beverley, Mass.
Perry Pictures Co., Box 3190, Malden, Mass.
Educational Publishing Co., 50 Bromfield St., Boston, Mass.

II

How to Make a School Garden, by H. D. Hemenway (Doubleday, Page), gives in clear, detailed form all necessary directions for this work.

School Gardens, a pamphlet by H. L. Clapp (The Palmer Co., Boston, Mass.).

Country Life in America, April, 1902; March, 1903.

Bulletins on School Gardening will be furnished free of cost by the U. S. Bureau of Education.

CHAPTER XII

GEOGRAPHY AND NATURE STUDY

Geography All-Inclusive. Geography, as it is commonly taught in the common schools, may be defined as a description of the earth's surface including all that lives, moves, and has its being upon it, all that grows out of it, and all that lies buried under it. The author has been consulting an outline of the subject as taught in one of the great cities of the United States, and he finds that many scores of topics are emphasized as "special subjects of study." One author designates this branch as "the center of correlation par excellence." But it might just as well be characterized as a "center of confusion" or a "center of distraction," either of which it is likely to become in the hands of an unskilled teacher. The materials in this study are necessarily chaotic and multitudinous. If turned loose in the midst of them the pupil will pick up considerable rough-and-ready information, but the knowledge acquired will lack depth and logical coherence.

Many people who visited the great exposition at Chicago in 1893 and the later one at St. Louis in 1904 tried to see everything on exhibition, but they came away with little or nothing in the form of permanent knowledge. Many

wandered about the exposition grounds without any plan or purpose, lured on to the point of intense fatigue by the exhibit in the immediate vicinity that held out the greatest enticement. So it is in some measure with the study of geography, especially in the case of beginners. The whole field is so new and entertaining that the interest in the confusing details constantly approaches the point of excitement. But there must be an aim or purpose in the teacher's mind as to the goal of every lesson. He must select and single out the few elements that are most important and that are relative to the purpose in mind, and must actually assist the pupils in ignoring the many other objects. The guide-posts are not at all apparent to the child, and mind-wandering is the most natural thing for both teacher and taught unless the former be fully aware of the situation.

Then, do not try to teach a little about everything that comes into view or into consciousness during the process of the geography recitation. Such practice will be entertaining but not instructive. For any single lesson consider the smallest details about one thing or principle rather than a little about everything. Logical continuity of thought in the direction of a given end is what is to be desired here to bring order out of chaos. If the lesson for to-day be concerned with the study of a river, a drainage system, or the form and movements of the earth, then stick to that as a unifying principle, and permit nothing to be considered during this recitation that cannot be shown to the pupils to be relative to the point at issue.

As a further guide to the study of geography the following suggestions are offered:

1 By the assistance of maps, globes, and the like, the young pupil must be given early in the course the best possible conception of the earth's forms and movements.

2 He may be aided in securing a visual image of the form and comparative size of the larger divisions of land and water as shown by the maps. This will include a rough estimate of comparative latitude and longitude.

3 He may be led to a proper conception of the influences upon climate of winds, ocean currents, mountain ranges, and the like, so that he can apply this knowledge deductively in the study of any country.

4 These climatic conditions must be thought of in connection with the study of the chief products of the country. It is not sufficient merely to teach that one portion of the country leads all others in the production of wheat, and another in cotton, but it must be shown what natural conditions make these facts possible. More of the philosophy of geography is what is needed in such cases.

5 Relate as vitally as possible all these matters to the activity and well-being of the people. Show that all these important articles of produce are brought forth under the operation of certain natural laws, of which man takes advantage.

6 Show how men engage in these great productive enterprises with a definite purpose of supplying the necessities and luxuries to others in exchange for money, and

consider briefly the chief means and avenues of transportation.

7 Lead the pupils somewhat early to a rough understanding of the evolutionary process that is going on in the world. Vast forests grow up, and decay or are cleared away. The shore line is constantly being changed by erosion and deposit. Huge animals that once lived upon the earth have been swept away as the result of changing conditions, as, for example, the American buffalo, or bison. The races of men are in a still somewhat active struggle for the uppermost place in the direction of the world's events.

If the teacher of geography will seek to have the pupils gain a knowledge of these and a few other great principles of the world's forms and movements it will be both possible and profitable to ignore all the thousand and one minor details of the subject except those relative to the special topic under consideration. The sooner the pupil can be made to see that these cosmic processes are vitally related to his well-being, the sooner the subject of geography will be transformed from a mere burdening of the memory to a matter of living interest.

QUESTIONS FOR THE CLASSES IN ADVANCED GEOGRAPHY

1 What benefits will this country derive from the completion of the Panama Canal?

2 Why are the Dutch expending vast wealth in the drainage of the Zuyder Zee?

3 Why has a great land syndicate so eagerly secured millions of acres of public timber land in the northwestern states of late, when such land has heretofore had few claimants?

4 Toward what center is population tending most actively to-day, (a) in cities? (b) in mining-districts? (c) in farming communities?

5 What forces or factors have been most effective of late, (a) in transforming rural life? (b) in transforming the resources of the soil? (c) in relieving the congested conditions of large cities?

It may be that these are more closely related to economics or sociology than to geography. They nevertheless illustrate a type of questions which might well be asked of the advanced student of geography in order to stimulate thought at a time when he is too much inclined to use merely his memory. He ought by this means to be given the impression that the geography of the country as well as its history is constantly being made.

Objects of Nature Study. To make the child more at home in the commonplace situations in which he dwells and in which he will most probably remain throughout life; to make it possible that the objects of nature may speak to him in that highest language of the soul during the odd moments that he may give to meditation; to teach the child how to pause and see meaning in a few of the objects in the otherwise bewildering environment and thereby to give him the first lesson in poise and simplicity of living—these matters are suggested as some of the purposes of nature study. This subject is not to be considered so much a separate course as a supplement to all the courses in that it deepens the child's consciousness of his environment.

Not Science. Nature study is not to be thought of as a science, especially in the sense that it goes to the bottom

of things and brings out a complete system of related parts. It must ignore bony skeletons and viscera and digestive apparatus and microscopic cross-sections, and other such inner secrets of science. On the other hand, not merely the bare outer facts but these in their human relations is what is to be desired. But there needs to be offered a word of caution against mere "browsing," against running helter-skelter amidst the objects of nature without really observing any of them. Rather pause at the sight, or sound, or smell of some object of nature and obtain first a clear perception, and then by closer approach a more complete observation. Lastly reach a helpful *inference* of some kind. This pausing and reflecting and acquiring sentiment will tend to check the habit of distraction into which the child is almost certain to fall if merely turned loose among the creatures of nature.

It is useless to think of trying to study the whole of nature. Consider only that portion which means most to you and from which you can lead the pupil to get the fullest meanings for themselves.

May Be a Related Subject. This subject may be closely related to geography. In the ungraded district school where time is so limited, it had better be taught only in connection with the latter subject. The work included in nature study usually has reference to plants and animals as they are found in their freest outdoor existence. One of the commonest methods of carrying on this study is to have the students bring to the schoolroom various specimens for

study and discussion. Some schools are finding it somewhat profitable to collect a miniature museum of specimens of rocks, fossils, preserved plants, and the like. Others are so situated that they can go out in groups and make observations. All of this is highly entertaining to the pupil and can be made profitable if rightly managed.

How the Child-Mind Acts. The first thing for the teacher to remember in conducting nature classes is that the child does not at first see things in complex wholes. Suppose a particular plant is being studied. Mere undefined gazing at it will not avail much by way of permanent results. On the other hand, the peculiar feature or formation of root, leaf, branch, and flower must be pointed out one at a time, and slowly enough for the child to perceive these elements singly. And, by all means, call especial attention to the characteristics that distinguish one species from another. Moreover, it is important that the object of study be presented to the pupils in as nearly as possible its natural habitat, form, attitude, as the case may be.

Study Processes. It is so easy to wander around and browse in the midst of these things of nature that the teacher needs to be on guard against this thing. There must be a purpose in every nature-study lesson so that a kind of logical unity may be got out of it. To this end it is better to study one object in its various stages of development than to observe many diversified forms merely in their static aspects. In other words, the child learns much more about what the thing *does* than about what it *is*.

Movements and processes attract him most. While he can not, of course, see the plant grow, he can easily be taught to observe it in many of its stages of growth. A young teacher in a country district was conducting her school in the study of wheat. Now, this cereal was growing all around, but there was, nevertheless, much that the pupils never had and perhaps never would have learned about it without some such guidance. On the day of the lesson she had, by prearrangement, some grains of wheat in a box in various stages of germination. These were carefully examined and there was given a simple explanation of how the plant secures its nourishment and of what this nourishment consists. A few full heads of the ripe grain also were on exhibition. At the close of the day's work all the pupils that were large enough went with her to a mill a mile and a half distant, and for nearly an hour studied the processes of flour-manufacture. All this constituted what the author considers a logical, intensive study of one of nature's processes. Such a lesson is of most permanent value to the young.

Study Purposes. It is an easy step from the consideration of processes to that of purposes. Nothing is of much consequence when looked at as a mere isolated fact. We have too long mistaken mere entertainment for instruction. So, What is it for? is a good question for the student of nature to ask and for the teacher to try to answer, as well. It is a mistake to think that young pupils do not enjoy tracing out casual relations. Just now a six-year-old cos-

mologist has been asking the author two pretty difficult questions, namely, "What holds the earth up in the air?" and "If the rain comes from clouds made out of the ocean, where did they get the first water to make the ocean with?" These questions are more nearly typical of such youngsters than exceptional.

Let us pay more attention to this linkage of facts in conducting the nature-study lessons, and thereby lay the foundation for logical and purposive thinking in maturity. While we cannot always show that these objects serve a purpose that is useful to man, we can explain how they maintain their existence in the midst of the struggle that is going on among Nature's children. It is an easy matter, however, to make a detailed study of some of the birds that devour insect pests and also of some of the vermin-destroying animals. These might well be placed with the domestic animals in a group and shown to be the friends and allies of man. This lesson is made most serviceable in the education of the child only when there has been aroused in him a genuine interest in the well-being of these lower creatures. He must know that the wanton destruction even of plants, as well as the mistreatment of dumb animals, is to be regarded in the light of a misdemeanor, to say the least.

Character-Building Considered. It is contended here that the nature-study lesson is only begun when the child has been led to discover the bare facts of nature. Along with acquisition of these facts he must also acquire a body of utilitarian and æsthetic sentiments about these living

things and a set of dispositions toward them that will lead him to accord them proper and considerate treatment. The cruelty to animals still so common among thoughtless men can best be eradicated not by legislation but by careful instruction on the subject of the youth of the land. Thus the lesson in nature study is to become a process of character-building.

But the chief element of character that is to be wrought out of nature study is derived from childish sentimentalism.

> There's a merry brown thrush sitting up in the tree,
> He is singing to me, he is singing to me;
> And what does he say, little girl, little boy?
> Oh, the world's running over with joy!
>
> The tall pink fox gloves bowed their heads,
> The violets curtsied and went to bed.

These little quotations are representative of the mind-attitude of the child. To him the things of nature are animated with a peculiar kind of responsiveness. Every true, spontaneous child of nature is a poet, and his poetic instinct ought to be indulged, not suppressed, by the stern, orderly facts of science. Then study Nature in connection with her poetry, which has been expressed so beautifully by some of the ablest composers. To the child rightly guided in this study these verses are real song-poems possessing a cadence and a rhythm that penetrate deep into his soul. Let him commit many of them to memory and thereby lay the foundation for a beautiful and inspiring sentiment for the future. A middle-aged man was traveling through

Canada by rail and was a thousand miles from home and friends and many long years removed from the scene of his early childhood. It was a rare June morning and there came in at the open window the clear, sweet note of the meadow lark. The traveler was enchanted, for this one little familiar, musical strain had carried him back to the old-time scenes with their beautiful, poetic reality.

What melody! Hark!
'Tis thou, O joyous lark!

How aptly the poet has expressed the whole story in the familiar lines,

To him who in the love of Nature holds
Communion with her visible forms, she speaks
A various language; for his gayer hours
She has a voice of gladness, and a smile
And eloquence of beauty, and she glides
Into his darker musings with a mild
And healing sympathy that steals away
Their sharpness ere he is aware.

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I

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2 GREENWOOD, J. M., Editor: *Successful Teaching* (Funk & Wagnalls); "The Various Methods of Teaching Nature," by Caroline C. Leighton. This book contains fifteen well-selected papers on teaching as many specific topics, together with an able introduction by the editor.

II

1 WHITE: *The Art of Teaching* (American Book Co.); Chs. XXI, XXII, "Geography."

2 DE GARMO: *Principles of Secondary Education* (Macmillan); pp. 89-97, "The Earth Sciences."

III

1 BAILEY: *The Nature Study Idea* (Doubleday, Page). A most excellent, brief work. Read it all.

2 HODGE: *Nature Study and Life* (Ginn). Introduetion by G. Stanley Hall. A scholarly treatment from the standpoint of a scientist.

CHAPTER XIII

ELEMENTARY AGRICULTURE

A Public-School Subject. Elementary agriculture is apparently destined to take its place beside the so-called common-school branches as a subject of study. One third of the people of the United States depend directly upon agricultural and allied pursuits for their livelihood, and all of them depend indirectly upon the products of the soil for their sustenance. The very staff of life comes out of the ground. The complex act of Mother Earth, whereby she transforms earth and air and water and sunshine into the materials of our dining-table and many of those of our commerce, can be woven into a story of great charm and interest for the young. When there is added to this the further story of how the ingenuity of man has made all these products of nature more available for his use, the interest is indeed heightened. Moreover, if rightly taught, this subject may be made just as strictly a cultural one as any branch now included in the public-school course.

Some of the more specific purposes of teaching elementary agriculture in the public schools may be stated as follows: (1) to show the fundamental nature of agricul-

ture; (2) to develop detailed familiarity with agricultural methods and farm life; (3) to render agriculture more attractive to growing youth. Within the present generation agriculture has grown to be a true science and a real art, and the position of the agriculturist has become more and more one of dignity and respect. The farmer, the gardener, the dairyman, and the animal-husbandman are destined to become, of necessity, men who have matured mentally by means of both general and special education. The very foundation of a stable, prosperous people rests in an intelligent rural population and a steady, abundant productiveness of the soil. These and many other reasons might be given for urging that agriculture—including the allied industries—is both a suitable and a necessary subject for school study.

Who Can Teach It? As the public schools are now conducted, the teacher is not a specialist in any one branch, but rather one possessed of a fund of knowledge of the elements of many branches of study. One does not need to know all about any subject in order to be able to teach the rudiments of that subject. A similar objection might be urged against teaching arithmetic or physiology to that likely to be offered in opposition to teaching agriculture in the public schools, namely, that the teacher has had no practical experience as an agriculturist. Neither has he had such experience as a mathematician or a physiologist. He has acquired his knowledge of both of these subjects chiefly from books. There is really an advantage on the side of

agriculture, in that its materials are so abundant on every hand that object-lessons are always practicable.

Any intelligent teacher can easily acquire enough knowledge of agriculture from text-books and observation to enable him to give instruction in the elementary principles of the subject. Those who live and teach in great cities will make the most satisfactory progress in their study of agriculture by means of visits to the country, just as the district-school teachers will profit much by making a personal study of a great city. The most important admonition is that in each case the teacher have a purpose other than that of being merely entertained and that he make his study systematic.

Who Is to Study Agriculture? Doubtless there will for a time be much prejudice to overcome with reference to teaching this subject at all in the public schools. In rural communities it will often be urged that the pupils acquire through practical experience all the necessary knowledge of agriculture, while city school patrons will tend to believe the subject to be too foreign to the children's interests.

And then, there is always the problem of an overcrowded course of study to be dealt with. Consolidation and better grading of the rural schools are helping to solve this problem, however. It may be advisable, in the case of many schools, to introduce the new branch of study by degrees; for example, by a once-a-week, carefully prearranged lesson on the subject In other schools it can take its place beside the other branches and rank with them. Under such condi-

tions a text-book will of course be used, and pupils of a certain grade will be assigned to the work. Pupils of an intermediate grade—about the seventh—are far enough advanced to take the text-book course.

How to Make Agriculture Interesting. If this work is to be made interesting, it must not be done too abstractly. The teacher's ingenuity must be exercised constantly in an effort to bring pupils into the closest possible concrete relations to agricultural matters. It will be well, too, to avoid the use of many new and difficult terms where the use of simpler expressions will suffice. But let every lesson have a purpose, not merely to entertain, but also to give instruction in some definite portion of the subject. Remember that the natural method of teaching any subject is to begin with that which is already somewhat familiar to the pupil. If the lesson to-day be on plant structure then have one or more familiar plants at hand to illustrate every point made. If it be in reference to the growth of plants, then get at the root of the matter through the study of a plant in different stages of its growth.

It will be a mistake if, in connection with his many other duties, the teacher tries to do very much laboratory work in teaching agriculture. Let the objects brought before the class be few and simple, but directly to the point. Often pictures will serve almost as well as objects, especially when the picture illustrates merely a new fact about some object with which the pupils are already familiar. For example, it would not be necessary to drag a lot of fodder

into the schoolroom in order to show a class of country pupils how the roots of the growing corn form a network underground between the rows. A picture will suffice for this. It is just such overdoing of the work of illustration that renders the lesson too complex for the elementary class, and results in confusion and lack of interest on their part.

Make a Few Excursions. If practicable, take the class in agriculture occasionally to some point where the lesson of the day will be best illustrated. The study of the different kinds of soil, for example, will be made most attractive by means of a short trip to a number of well-selected points. Again, it is often possible to find in the same pen, or two adjoining ones, representatives of both high-grade domestic animals and "scrubs." A nearby meadow or pasture may, at another time, serve well the purpose of illustration for some particular lesson.

Encourage Questions. Do not hesitate to encourage question-asking, even though you may not be at all ready with your answers. There is no disgrace in not being able to answer definitely all the questions a pupil may ask on any subject. These questions by pupils will often furnish excellent topics for further inquiry and investigation, and serve the purpose of developing the pupils' resourcefulness as well. The best teacher is always capable of being taught by his pupils. The questions asked by the pupils of one class will prepare him to serve better the interests of the next.

A Course of Instruction. Below is given under eight general group-subjects a series of forty lesson-topics. Each

of these topics may be used as the basis of a single lesson, or it may be expanded into as many lessons as time and other conditions will allow. No effort is made to give the details of the lesson-development, but there are perhaps enough suggestions to guide the teacher of ordinary ability. Illustrate every lesson as far as possible by means of reference to familiar objects and facts.

I Lessons on the Soil

1 *Origin.* First show that by the soil is meant that comparatively thin portion of the earth's surface which, under proper conditions, is capable of supporting plant life. Then, explain how rocks are disintegrated by means of what is called *weathering*, that is through the action of air and water and changes of temperature upon them. Explain also how animal and vegetable remains become constituent parts of the soil, and how moving ice and water have been agencies of the work. Very brief notice may be given to residual soils.

2 *Kinds of Soil.* Soils are classified according to texture and composition into sand, clay, loam, gumbo, alkali, hard-pan, and their combinations. Show the meaning of sand as an element in varying proportion in soils and bring out the chief distinguishing points of each kind of soil. If possible, see that pupils have opportunity to examine the different kinds, and that they understand what is meant by surface soil and subsoil.

3 Chemical Elements and Fertility. This lesson will be more difficult, as it will be chiefly one of abstract description. It will be well, however, to name over the chemical elements of fertility in the soil, and to give particular attention to those which are most likely to become exhausted through long and injudicious tillage, as nitrogen, phosphorus, potassium and calcium.

4 Renewing the Soil. First, bring out the point that crop-production means soil-exhaustion, and that the elements, or at least some of them, must be continually returned by some kind of device, or profitable tillage will cease. Show that soil-fertility may be kept up in at least three ways: (1) by conservation by means of crop rotation; (2) by manuring; (3) by the use of commercial fertilizers. By means of a number of specific examples make the pupils see just what each of these processes means. For example clover and alfalfa will restore the nitrogen exhausted by wheat. Explain how.

5 Irrigation and Drainage. These topics furnish abundant opportunity for an extended lesson. Growing crops must have water, but they may be given too much. Show specifically what nature accomplishes, both by way or irrigating and draining soils; that its work, in these respects, is done almost perfectly in some localities and very imperfectly in others. In the latter case man has supplemented nature: (1) by conserving the moisture by means of so-called "dry-farming"; (2) by conducting to the soil the water from mountain streams and artificial reservoirs;

(3) by means of draining-ditches and tiling. Such agencies as wind, heat, and vegetation constantly extract the water from the soil. Explain capillary attraction of water in soil.

II The Plant

1 The Parts of a Plant. This may be a simple analysis of the plant as roots, trunk, branches, bark, woody part, leaves, blossoms, fruit, and the like, with the object of making clear the general idea that each part has its particular function in the plant's life and growth.

2 How Plants Grow. Here the study of the plant may become more detailed. Show how plants drink from the soil through the hairlike root fibers, and the meaning of root tubercles; also how the sap circulates so that the nutritious liquid substance is carried through the woody part from the roots to the branches and leaves, and how the carbon absorbed by the leaves from the atmosphere is conveyed through the bark as nourishment for the roots.

3 The Fruit Product. The consummation of all plant life is the fruit. This is preceded, however, by the flower or blossom, which usually has the double function of being beautiful and of being transformed into the fruit. Show how nature produces, along with the fruit, seed for the next generation. Bring out and illustrate the various methods of pollenization, and explain, if time will allow, how crosses and hybrids occur.

4 Plant Propagation. Illustrate by means of simple

experiments how several kinds of seed germinate, as beans, corn, wheat. Also illustrate by means of pictures or actual specimens propagation by budding and grafting. Questions regarding seed purity and vitality in both desirable plants and weeds will be of interest. Discuss planting and caring for familiar fruit trees and garden vegetables.

5 *The Return to the Soil.* Show how the purposes of nature are best subserved by returning through decay to the native elements of the soil all the portions of the plant not actually required for use.

III Enemies of Plants

1 *Plant Diseases.* Discuss and illustrate by examples such matters as fungus growths, showing that fungi are living plants that grow and feed upon other plants, and that they reproduce by spores rather than seeds. Have brought in before the class a number of these parasitic specimens, as ergot in corn, smut in wheat, scab in potatoes, and blight in apple leaf.

2 *Cheat and Weeds.* Show how some cereals, for example, tend to become adulterated with "cheat" when the seed is not properly selected, and how weeds hinder the growth of plants by absorbing the moisture and other necessary plant ingredients from the soil. Weeds, however, when turned under with the plow, may benefit the soil for the next succeeding crop.

3 *Insect Pests.* Here the materials will be very abun-

dant. Specimens of grasshopper, chinch bug, caterpillar, potato beetle, and others may easily be brought before the class. Examine a few of these pests in their three forms; larva, pupa, and adult. If possible, witness them at their work of destruction, and learn just how the injury to the plant is effected. Study then the best known methods (1) of prevention, (2) of destruction of these noxious insects, not forgetting to consider the usefulness of birds in the latter connection.

4 *Improper Planting and Care.* Man himself is often indirectly the enemy of the plant through improper planting and care. Much wheat, for example, is sown on unprepared ground, while corn is carelessly tended. Mismanagement should be charged to ignorance, while the work of the intelligent, educated farmer may be shown by way of contrast.

5 *Improper Propagation and Cultivation.* The instruction here should emphasize specific methods of seed-selection and seed-breeding and scientific methods of cultivation. Do not make the lessons too advanced, but make use of contrast and example.

IV Farm Products

1 *Some Staple Crops.* This topic had better be devoted at first to consideration of the geographical distribution of the great staple crops of the United States. Show how soil and climatic conditions determine the limits of the corn, wheat, and cotton belts, and the like.

2 *Wheat.* Consider qualities and preparation of soil for wheat, also time and methods of sowing spring and winter varieties. Discuss also seed-selection. Then follow the crop through such processes as cutting, stacking, sweating, threshing, storing, and marketing. Finally, take up the bread-making question.

3 *Corn.* Extent and importance of this great American crop. Value as a food for men and animals. Manner of preparing soil, selecting seed, planting, tending, and harvesting. In large cities it will be necessary to have specimens of corn in its various stages of growth.

4 *Cotton.* Treat this subject in a similar manner as those above, considering the two chief varieties. Give specific attention to the manner of picking, baling, and ginning cotton, with a final discussion of the wide use to which it is put.

5 *Hay and Pasture.* Emphasize the fact that these are necessary adjuncts of every complete farm. Discuss tame and wild, or prairie, grasses for hay and pasture. Clover, alfalfa, timothy and bluegrass will have special consideration; also the details of haymaking.

V Orchard and Garden Produce

1 *As a Means of Support.* Treat this topic in the same manner as number one under Subject IV, showing where the most productive and profitable orchards and gardens are located, with reference to climate and center of population, and why.

2 *Some Staple Fruits.* Discuss in detail methods of producing apples, peaches, pears, apricots, oranges, and lemons; also some of the most important small fruits, including those of the vineyard.

3 *Some Staple Vegetables.* Treat this topic in the same manner as topic 2 above, placing the emphasis upon means of successful production, and include potatoes in the list.

4 *Marketing.* There are two aspects of the general subject V; namely, the production of fruit and vegetables for family use, and their production for purposes of a livelihood. Show that the latter is conducted on a much larger scale, and that there is nearly always a problem of finding a quick, convenient market.

5 *Floriculture.* Discuss briefly the vocation of florist, but speak more in detail of floriculture as constituting a part of the home life. Pay particular attention to methods of raising a number of the most familiar flowering plants.

VI Domestic Service Animals

1 *Breeds and Purposes of Horses.* Contrast high-grade, standard-bred horses with Indian ponies and "plugs"; also draft horses with coach and driving horses. The importation of registered horses.

2 *Care and Training of Horses.* How to feed and groom, and how to break a horse for work, riding, and driving, are important sub-topics here; also shoeing and other means of protection and of humane treatment. Diseases of horses may have some mention.

3 *The Dairy Cow and Dairy Produce.* Selection and care of dairy cows for family use. Sanitary handling of milk, cream, and butter.

4 *Dairying as a Vocation.* Visit, if possible, a large dairy and study methods of caring for and milking cows and of manufacture of butter and marketing the dairy product. Observe a milking-machine at work.

5 *Bee Culture.* How bees gather and store honey. Flowering plants necessary. Queen bee workers and drones. Swarming and hiving. Winter protection and insect enemies of bees.

VII Domestic Animals for Food

1 *Cattle.* Selection and breeding for weight, ease of fattening, and quality of beef. Grazing and scientific feeding. Watching for a good market.

2 *Swine.* Best breeds for farm, and quality of pork. Quick returns. Feeding and marketing. The packing-house.

3 *Sheep.* Twofold purpose of sheep. Production and use of wool. Best breeds of sheep. Sheep as foragers.

4 *Fish and Game.* Fishing and hunting as an industry; as an avocation. Extinction of wild game once plentiful. Laws for protection of fish and game. Hunter's license.

5 *Poultry.* Poultry-raising on the farm; as an industry. Various breeds of poultry. Care of poultry. Egg-production.

VIII Farm Improvements and Adornments

1 *The Comfortable Farm Home.* It will be easy to obtain a number of good plans from an architect, at least by sending for them. By means of these, study farmhouse construction externally and internally. Consider cost and convenience of arrangement.

2 *Care of Fences, Hedges, Lawns, and the Like.* Make, if possible, a comparative study of models of these and contrast with them broken-down fences and ill-cared-for hedges and lawns of the average farmer. Discover just how the models are acquired. Shade-trees.

3 *Implements and Labor-Saving Devices.* Make comparative study of present and former methods of tilling the soil, of harvesting, and the like, making reference to such conveniences as the carriage, the windmill, and the telephone. Discuss care and preservation of farm implements.

4 *Sanitary Conditions.* Drainage about house and barns, cesspools, air and sunlight in the house and the barn. Conditions of wells and cisterns. Distance of barns from house.

5 *Society in the Country.* Distance to schoolhouse and church, and to town or village. Means of social improvement. Literary and religious societies. Social improvement clubs, and the like.

The reader will have observed by this time how easily each of the forty lessons outlined above may be expanded into five or more.

BOOKS FOR SCHOOL LIBRARIES

AGRICULTURE FOR BEGINNERS.—*Burkett.*
PRACTICAL AGRICULTURE.—*James.*
ELEMENTS OF AGRICULTURE.—*Bessey.*
PLANT BREEDING.—*Bailey.*
FIRST BOOK OF FARMING.—*Goodrich.*
SOILS AND CROPS OF THE FARM.—*Morrow.*
THE BOOK OF ALFALFA.—*Coburn.*
FIRST PRINCIPLES OF AGRICULTURE.—*Goff.*
AMERICAN FRUIT CULTURIST.—*Thomas.*
VEGETABLE GARDENING.—*Green.*
ROCKS, ROCK WEATHERING AND SOILS.—*Merrill.*
THE SOIL.—*King.*
SOILS.—*Burkett.*
SOILS.—*Hilgard.*
PHYSICS OF AGRICULTURE.—*King.*
CROP GROWING AND CROP FEEDING.—*Massey.*
CEREALS IN AMERICA—*Hunt.*
GRASSES.—*Spillman.*
CLOVERS AND HOW TO GROW THEM.—*Shaw.*
FEEDS AND FEEDING—*Henry.*
ELEMENTARY STUDIES IN INSECT LIFE.—*Hunter.*
HANDBOOK FOR FARMERS AND DAIRYMEN.—*Woll.*
AMERICAN DAIRYING.—*Gurler.*
HOURS OUT-OF-DOORS.—*Van Rensallaer.*
LETTERS TO A FARM BOY.—*Wallace.*

CHAPTER XIV

ENGLISH GRAMMAR

Relation to Language Study. After the young pupil has grown actually interested in the forms of speech and has begun to take some personal pride in their correct use, the introduction of the formal study of grammar will be comparatively easy. The country is still pretty well populated with boys and youths who "don't see no use in studyin' grammar," and they are trying to speak the truth as they see it. But such youths, it will usually be found, have had no introduction to grammar through language-study, and so they have come upon a difficult subject too suddenly; it is not, from their point of view, one that is related to their well-being and they often resist it with enough force to master it if they could see its meanings and its application to themselves. This resistance to grammar study to the bitter end on the part of the youth will render his pursuit of it well-nigh valueless. He will lack the attitude of the learner, and hence there will be a possibility of forcing little of this strange, foreign subject down him during the term. So perhaps the first task of the teacher in this case is that of arousing the interest of the pupil in the science to be taught. But—

Why Study Grammar? English grammar is constituted chiefly of a set of arbitrary or conventional rules and principles to which it is tacitly understood the words of the language must conform in their uses, forms, and relations. These rules and principles are arbitrary in the sense that others might serve the purpose as well or better if we could select and agree upon them. They are conventional in the sense that one is usually regarded by so-called refined society as being "cultured" in proportion to his ability to use these forms correctly. These demands of society are, therefore, effective as an incentive to the study of the correct forms of expression at least. A knowledge of these forms is somewhat necessary to clearness of expression in both speaking and writing. Misunderstandings of a serious nature may sometimes occur through a mere slip of the tongue or pen. Some small insight into the history of a language is often a means of arousing an interest in its formal study, for this insight changes a dry, dead fact into a living, growing thing.

This very subject is too often regarded by the young teacher as an isolated body of rules and principles that simply must be learned. But such a teacher is not himself awake to the living aspects of the subject and he cannot expect his pupils to be; he is not properly acquainted with the subject himself and he is urged to undertake heroically two things: (1) through the assistance of some more scholarly person to secure a brief, concise historical treatise on the English language and study it carefully; (2) to secure in the same manner the best beginner's Latin book and study

that diligently. By these means he will obtain a new and more vital point of attack in his study and teaching of English grammar. He will be studying all around his subject as advised in a previous chapter of this book.

A Practical Subject. After what has been said above, it may not be necessary that the teacher be cautioned about requiring pupils to learn the rules and principles of grammar simply because they are something every gentleman and lady should know. All knowledge that is worth while is for *use* in accomplishing something. And so it may be said that the best and most legitimate purpose of the study of English grammar is that of acquiring a set of rules of practice in the use of the language. There is often too much time expended in the work of committing to memory and reciting orally the conjugations and declinations. This mere memorizing must not proceed in advance of practice. A pupil may know every one of these things by "heart," and yet fail utterly to think them in their practical relations. In fact, this condition of affairs is painfully common in our public schools to-day. This error of time-wasting can be obviated largely by means of synopses in the case of the verb-forms, and also by requiring pupils to give and use in sentences illustrations of the various word forms with which they are not thoroughly familiar.

The pupil is to understand, then, from the beginning that grammar is not only something to be used but something to help him to win some desired advantage. It is not an unworthy thing for the pupil to believe that the mastery of

this subject will help him to obtain some coveted position in the business or social world. If in relation to the study of grammar it is understood that pupils will be ranked and graded on a basis of both what they say and how they say it, there will be much greater effort toward practical improvement. If, for example, in the course of the debate in the Friday afternoon exercises, the decision is rendered not merely in accordance with the number of points made but on the basis of the number of points stated clearly and grammatically, there will result a living interest in the practical application of grammar.

It may seem a matter of amusement, but it is nevertheless true, that many a youth acquires his first real interest in grammar study at the time of the awakening of his sex-instinct, at the age of about fourteen or fifteen. This is a very significant fact, of which only the wise teacher can take advantage in matters of both instruction and discipline. The young man is now naturally very ardently in love with at least one young girl in the school and he has a tender regard for nearly all of them. He suddenly becomes unusually interested in making a creditable appearance; and his interest will manifest itself through a renewed effort to acquire the practical use of the language. He now does everything with reference to the special object of his affection. He is conscious of much effort to use fitting words and to frame grammatical sentences for *her* sake. In such cases we have the best possible example of a living interest in a so-called "dry" subject of study.

The Meaning of Terms. In the course of grammar-teaching there is often too little attention given to the matter of acquiring rules and definitions understandingly. In his experience with hundreds of teachers in institutes and as many county graduates who were reviewing their grammar the author has been surprised at the general lack of real insight into these matters. The typical instance has been found to be this: The student or young teacher knows his definition and can usually repeat it readily from memory, but he does not think its meaning, and hence he cannot use it intelligently. Take, for example, the word "modifier," a part of a sentence that limits the meaning of some other part. This definition has probably been held long as a mere matter of memory. But *how* does one word or expression limit another? It would seem that the only way to teach this comparatively simple matter effectively is to present a series of expressions showing a variety of modifiers, and by means of the Socratic method to develop in the mind of the pupil an understanding of the principle involved.

Again take the word "participle" (from *parts-capere*), a word or expression that partakes of both the nature of a verb and that of a noun or adjective. It is always part verb and part one of two other things. But to teach the participle intelligently illustrate its double use many times and make detailed inquiry into its meaning. Take, for example, the sentence: By studying faithfully he won the prize. "Studying" is a participle having the construction of a noun, but its verb nature is modified by the adverb "faithfully."

Again, What are correlatives? It seems that there are very few among the classes named above who could answer the question intelligently, although many could give illustrations of the use of correlatives. Correlatives are not necessarily both the same part of speech, but they almost always bear the same relation to two words or expressions of equal rank. This same intensive study is advised in regard to such terms as *infinitive, conjunctive adverb, adjunct,* and *demonstrative pronour.* In fact, it is a good principle of pedagogy to be observed in all classes, that the rule or definition to be memorized must be also understood. A common-school graduate came into an advanced grammar class with a fixed, verbal memory of this puny definition: "An adverb is a word that tells 'how.'" His thinking had gone only far enough to deduce the converse, "Anything that tells how is an adverb." It was a very difficult matter to dispossess him of the childish habit of defining grammatical terms.

Rules of Practice. In teaching English grammar there are always certain matters that ought to have the greatest prominence:

1 *Analysis.* The work of analysis cannot be carried on too persistently throughout the entire course. Something has already been written with reference to going into the meaning of the parts of sentences and securing their logical relationships and implications. But the great instrument of grammar-study is sentence-analysis. A poor substitute for this, and a thing which with many young teachers grows

into a kind of fetichism, is diagramming. With them the whole sentence and every separate part of it are for the sake of the diagram. It is not so much, "What does this part of the sentence modify?" as "Where can I put it so that it will look well?" Strange to say, many such persons can diagram beautifully, but they cannot analyze a sentence intelligently. On the other hand, the person who can analyze a sentence can either make a diagram or do without it. The best excuse for the use of the diagram is that it furnishes a very convenient and readily-made picture of the analysis. But while the diagram is for the sake of the analysis the converse statement is not true. It must be remembered, also, that even the analysis is not for its own sake but for the sake of a proper interpretation of the printed page. Therefore, the sentences for analysis should be such as are found in good literature.

Oral analysis is one of the most profitable exercises in grammar-teaching, but for the reason that it requires so much time many abandon it altogether and fall into the habit of having everything diagrammed. But try this plan: Do not attempt as a rule to bring out a complete and full analysis of every sentence, but analyze with a purpose. Take for example, in a series of lessons, the analysis of clauses only, in another series the analysis of phrases, and so on. Have a practical, business method and insist on its use. Eliminate the trivial, non-essential parts of analysis that merely take up time. Think of the utter uselessness of having every pupil who recites attempt to give every part

of the analysis, even to the extent of repeating again and again " 'the' is an adjective element of the first class modifying the noun 'boy,' " and the like. Such practice is both trivial and inexcusable. No wonder pupils lose interest in the recitation. They *ought* to under such circumstances. Then, have a method and a specific purpose in all the work of analysis.

2 *Parsing.* This is a valuable exercise, in that it gives a review of nearly all the principles of grammar, and practice in quickness of interpretation as well. Notice this order of parsing nouns and verbs:

Nouns	*Verbs*
Class	Class
Person	Form
Number	Use
Gender	Voice
Syntax	Mode
Case	Tense
	Syntax
	Person
	Number

and these examples of written parsing:

The	*sun*	*rose*	*bright*	and	clear.
	c n	ir it	des		
	3	act	bright		
	s	ind	brighter		
	n	past	brightest		
	subj	"sun"	"sun"		
	n	3			
		s			

This method of written parsing was first introduced, it is said, by E. O. Lyte. It is brief, comprehensive and clear;

and, if held rigidly to its use for a few lessons, pupils will apply it with much effectiveness. But its chief value lies in its careful use. The teacher must insist on having the parsing done by all in the order given by him in the model. Also require the strictest use of the letters in the abbreviations. No periods are used, and "s" not "sing" and "p" not "plural" mean respectively singular and plural. Observe that the syntax is given in its logical order. The construction of a noun must be known before its case can be given. By means of this rigid exactness the teacher soon brings about uniformity of action in the minds of the pupils as well as in their written and oral work. They learn readily the fixed order decided upon in the model as, "class, person number, gender, syntax, case," and thereby acquire a facility in getting through with the lesson that is entirely foreign to the haphazard method. The mind of each knows just what to expect or look for next during the course of either the oral or the written work. When, however, the pupils have thoroughly mastered this work of parsing, it is time to drop it, and the fact that they can do it with such pleasing facility certainly is not a warrant for keeping it up throughout the term.

MORAL: Beware of the allurements of keeping pupils busy reciting the easy and familiar, as the manner of some is, for out of such easy-going practice comes the minimum of development.

3 *Synthesis.* If knowledge of grammar is for use and not merely for its own sake, then, it is very essential that

theory be accompanied by practice. Much sentence-building and smaller word-arrangement is necessary to illustrate and bring out the meanings of rules and principles. This work is to be done in full detail by the pupils. There is a very common tendency among younger teachers to omit this practice on account of its being tedious and to concentrate the efforts of the class upon diagramming and reciting of conjugations and declensions. That is, they emphasize the structural rather than the functional aspect of the subject. As a result of this kind of teaching many common-school graduates who can show ninety per cent or more on their diplomas reveal a lamentable amount of ignorance in regard to the practical use of their theory. These same graduates go about with their "I done it," and their "haven't saw," and their "ain't no use in talkin'," as so many examples of mismanagement in grammar-teaching and they thus reflect discredit upon the entire course of common-school instruction. When will teachers acquire the temerity to grade and advance pupils on the basis of what they can do as well as on the basis of what they know? If the pupil is impressed with the thought from the very beginning that his promotion is to be determined by his practical use of, as well as by his knowledge of the theory of grammatical forms, then this much-desired result will be forthcoming.

4 *Psychological Method.* No amount of mere study of the dictionary will ever make one proficient in the use in sentences of the words it defines; he can master them only through much practice. Likewise, in the study of formal

grammar the theory must be put to use in speech forms as fast as it is acquired or it will become a dead weight in the pupil's memory. So, it is evident that the desired result must be brought about through continual practice. Correct speech forms are acquired almost wholly through imitation of the model expressions seen in print and heard by the learner. The theory will serve only to guide the practice and to verify the results. The teacher must, therefore, seek to make the practice popular by means of correct examples on his own part, and through other devices. Some teachers go too far and by assuming the airs of too high a degree of perfection appear pedantic and affected. A slight variation occasionally from rigid rules will lead young pupils to feel that the teacher is at least human and worthy of imitation. Even an occasional use of slang is pardonable. It is the habitual, unconscious use of slang expressions that is so objectionable.

5 *False Syntax.* There is much serious objection to the practice many teachers make of using examples of false syntax. It is a bad rule of pedagogy that requires a pupil to become thoroughly acquainted with the nature of an error in order that he may avoid it. How would it do to give the boy a course in criminal conduct in order to make a good, law-abiding citizen? Few would risk such a method of procedure, and yet many follow a similar one in grammar-teaching. Supplementary books on "Errors in English" and "Examples of False Syntax" are brought into use too freely. A study of such books tends to emphasize habits

of speech that are already too deeply imbedded in the nerve cells of the erring pupils. Far better would be the practice of reading off a list of correct expressions to pupils and requiring them to bring to the class a number of such examples to be read aloud. There must be the freest possible use in the pupils' presence of the correct expressions, so that the latter may come, through repetition, to have a familiar sound. Require pupils to repeat these many times with a consciousness of the principle or rule they illustrate rather than of the error for which they are substituted. Here are some examples:

If I were he.
Whom did you meet?
I have no pencil.
We thought it to be him.
They said it was she.

There must be developed among the pupils a sentiment favorable to the use of these better forms. Often a good way to correct a pupil's error is to repeat his statement in the desired form. Two ends are to be sought in this connection, (1) that the pupil become conscious of the correct form of statement, and (2) that he resolve mentally to use it in the future.

REFERENCES

Reference texts in English grammar are exceedingly plentiful. The reader is referred to Lyte, Hoenshel, Hyde, Scott & Buck, Read & Kellogg, and Carpenter.

For the brief Latin course referred to above, Collar & Daniel's *First Latin Book* (Ginn) is recommended.

For the historical language study, see Mikeljohn's *History of the English Language* (Heath), 75 pp.

Jacoby's *Hand-Book of English Grammar* (Crane & Co., Topeka) contains a good working-outline of the subject and a brief summary of the history of the language.

CHAPTER XIV

HISTORY AND CIVIL GOVERNMENT

What Is History? Before discussing methods of teaching this subject it would be well to consider what its nature is. But upon this matter there has long been a diversity of opinion. Herodotus says that history is investigation and what it reveals for our understanding. In the judgment of Emerson and Carlyle the history of the world is constituted of the biography of its great men. Others regard history as being a record of political movements. On account of the prejudices that men show in relating what they actually witnessed, some believe that a true account of past events can never be rendered and that, therefore, history is "fiction agreed upon."

According to the eminent philosopher Hegel, history is the dramatization of truth—a great series of acts in which men, the players, represent the thoughts of God and materialize them in an ever-ascending scale of concrete forms. His view is, of course, too metaphysical for the young teacher or the student, but an occasional contemplation of it may serve to keep one from the extreme opposite one, namely, that history is a chronicle of dates, battles, and changes of governmental administrations to be commit-

ted to memory. Against the latter narrow, cramping view of history, the young teacher is especially warned; he who adheres to it cannot hope to make the subject a live one. What is the matter and what is the remedy? An understanding of the remedy will reveal the cause of the error. If the teacher will cultivate assiduously the habit of studying current events through the medium of the daily papers and the best magazines, he will in time learn to regard history as a great world process that is just as much a fact now as it ever was. A detailed outline of this living method will be given later in the chapter.

The Groundwork. The discussion now to follow will relate chiefly to the teaching of United States history, the common-school subject. This subject presupposes a knowledge of geography, and it would be well in the beginning to re-examine the maps and, with the pupils all attentive to the question, to ask why the earth's surface should be cut up into so many divisions great and small. Notice again the metes and bounds of our own continent and of our own grand division of it. Say something in a cursory manner about the great differences in the ages of countries and of the facts and causes of migration from one to another.

Young students at the age of beginners in history are naturally philosophical if permitted to be, and they will show much interest in the question as to how nations originate. A discussion of this matter will lead easily to a consideration of the motives that prompt men to leave their homes and go into new and uninhabited foreign lands where

tremendous sacrifice is so imperative. The spur of necessity, the spirit of adventure, the desire for wealth, the zeal for religious and political freedom, and the instinct for home-making—these five great factors may be brought out by the pupils themselves under the stimulation of the teacher's thoughtful questioning. The value of such a method of beginning the study of history is not that it supplies the student with any new facts, but that it tends to give him the reflective attitude toward the events of history. The subject-matter is thereby rendered not merely structural but also functional. He is to make this a living subject by seeking to know not only what occurred but why an event took place. The interpretation of history, in other words, becomes an indispensable part of its study.

The War Element.* How much space and attention shall war be given in consideration of this subject? The author recalls that his first teachers in history gave practically the entire time to the study of war. The cause of the war was made out in form of one or more statements of fact and committed to memory. Thus, "Taxation without representation" was the memorized cause of the Revolutionary War. We committed this statement to memory and then rushed into the smoke of the battles. No questions were asked about the real meaning of this statement and no applications were offered. It is doubtful if those young teachers ever gave the matter any consideration in their own minds. After this beginning was made there

* See the excellent address of President Schaeffer of the N. E. A. as recorded in the bound volume of the proceedings, 1907.

was practically no variation of the method of the recitation. The exact date of each battle, the detailed movements of the troops, the two opposing generals, the number killed and wounded in each engagement, the side that won, with an occasional relief in the monotony resulting from a change in commanders-in-chief which called for some brief biographical study—this constituted our course in United States history. We must admit that war was once the greatest factor in the world's history, and that for many centuries it was practically continuous among the leading races. War represents what may be considered the boyhood of a race. There is a time in the life of every normal, well-organized boy when he does, and perhaps ought to do, some fighting. Such practice promotes a healthy growth of the muscular and nervous tissues and makes for manly courage, it is said. There are two or three things that the young student of history might well have brought to his attention in this connection. One is that some modern wars are carried on largely in the interests of designing politicians and capitalists. Another is that there is a strong movement among nations in favor of international arbitration as a means of settling all disputes. If this could be established securely, disarmament would follow and the tremendous expense of equipping and maintaining armies and navies would be cut off. Tradition and custom are perhaps the chief opponents of disarmament among the civilized nations, just as in one state in our nation it has always been thought necessary for every man to go heavily

armed so that every other man will be afraid of him and let him alone. One evidence of the decreasing severities of warfare is that there is among modern nations a tendency to insist on the use of smooth, antiseptic cartridge balls on the battlefield—missiles that temporarily disable but do not kill the victim.

Diplomacy vs. War. While the war question is being discussed by the thoughtful members of the class it might be well to remind them that many impending wars are averted by diplomacy. Bring out the fact that it is the custom of the leading nations to maintain an able representative at every foreign seat of government of any importance, and that it is a part of the business of this official to assist in adjusting differences arising between his own government and the foreign one at whose seat he is stationed, as well as to look after the private claims of the citizens of his own country. So it is probably fair to say that war is gradually becoming a smaller factor in the real progress of the nations. Such matters in modern times as important legislative enactments, the opening of great waterways, the construction of transcontinental railways, the inventions that facilitate rapid and easy communication among the masses, the ever-widening dissemination of scientific methods in agricultural and mechanical pursuits, and means of transmitting the news of the world's happenings to every part of the globe—these are some of the subjects that must have an important place in every well-written and well-taught historical account, for they are absorbing more

and more the attention of the people at large, and detracting from their interest in wars and the trivial quarrels among nations. On the basis of these mighty agencies there is slowly being built up a fuller consciousness of the common brotherhood of man.

Current History. In this feature of the subject there is to be discovered the missing link of history-teaching. Just as the author was taught in his early boyhood that the history of the United States ended at about the time of the surrender of General Lee, so will the teacher who is not in touch with current events regard history as a body of dead facts to be committed to memory, and he will present it to his class accordingly. If historical events of the past are to be understood and not merely memorized, they must be interpreted in the light of the living present. There is no shortcoming that is more to be deplored and that is more inexcusable than that of some otherwise good teachers who wholly ignore current history.

But what is to be done to enable the schoolma'am (who is more frequently in error here than the schoolmaster) to realize that history is actually going on to-day? Let us be practical. She must learn to read intelligently a first-class daily paper and at least one standard magazine that reviews widely the world's greatest events. It would not be inappropriate to have the school board pay for both of these and to consider them a part of the library. Just at this time (February, 1909) there is pending a serious agrarian revolution in Russia, anti-Japanese legislation in Cali-

fornia that threatens to disturb existing relations between the United States and Japan; an attempt on the part of reactionary officials in China to overthrow the very important progressive policy recently adopted in that country; and no end of contention in our national and state legislatures over corporations and matters affecting transportation. There is also now being built by this country one of the greatest canals of all history, and yet there are teachers at work in many schoolrooms to-day who have never heard of these things.

The practice of discussing in outline some matter of current interest before the entire school is a commendable one. In connection with the opening exercises, for example, in five or ten minutes' time there might be given considerable detail as to the method and magnitude of the Panama Canal undertaking. At another time some new law passed by the legislature affecting the public schools might be taken up. The passing away of some person of public note would furnish the occasion for another talk. Thus there would be a tendency to broaden the consciousness of the pupils and to substitute something far better for many of the morbid ideas that flit through their minds as a daily habit. But the chief meaning of teaching current events, to be emphasized here, is that it tends to change the history of one's own country from a dead subject into a living one. The pupil is by means of it made to feel that the progress of the race and the people of his own country is as much a fact to-day as ever, and that this progress

has vital relation to his well-being, both now and in the future. History is a factor in defining his course. If this last statement be true, then it illustrates the secret of arousing interest in any subject, i. e., the pupils must feel a personal relationship to the subject.

The Recitation in History. A well-written history text will lead to a logical manner of presenting the subject, but unfortunately not all the texts in use are of such a character. The history of the United States is naturally divided into a number of important epochs or periods extending from one crisis or turning-point in events to the next. The teacher must of necessity be prepared to supplement the text faulty in respect to its division. Perhaps no better suggestion can be given here than that he supply himself with two or three good reference works on the subject. These supplementary volumes are, moreover, almost indispensable in assisting his understanding and memory in the use of the adopted text.

There can be much precious time wasted in the school in making long, detailed outlines of the lessons, but another extreme perhaps fully as bad is to make none. Few pupils will fall into the practice of making outlines unless required to do so and still fewer know how to make a good, helpful one unless they are shown specifically. The chief purpose of the outline in history-study is to aid the memory by means of bringing the mere titles of events into their proper logical relation. To give the outline too much detail is confusing. The tedious, bunglesome exponent system is

abominable and ought never to have been invented. Yet some teachers use it so extensively as to make it a matter of absorbing interest. They are really conducting a class in outlining, with the events of history used as mere matter of illustration.

But if the teacher is able to step to the board—or perhaps better have some member of the class do so—and in less than one minute jot down from memory the series of statements given below he can make all the outline necessary for this topic. The headings are taken from Thorpe's *History of the United States.* A good outline, unless one is "cramming" for an examination, is always suggestive rather than recitative.

OUTLINE

THE NEW INDUSTRIAL ERA (1885-1900)

I CLEVELAND'S FIRST ADMINISTRATION.
- 1 Public questions, nature of.
- 2 Regulation of Immigration.
- 3 The Interstate Commerce Act.
- 4 Pan-American Congress.
- 5 Department of Labor Created.
- 6 The President and the Tariff.
- 7 The Election of 1888.

II HARRISON'S ADMINISTRATION.

Etc., etc., for the next day's outline.

This method of outlining will allow practically all the time for the discussion.

Civil Government. If the young student is to understand, and become thoroughly interested in, this subject, he must first be made more conscious of the conditions of

authority in his immediate environment. The systems of government with which he has the closest touch are those of the home and the school, and it would be a very helpful introduction to the study of the higher municipal forms of government to consider for a day or two the logic and the necessity of these lower, more familiar forms.

Horne, in his *Philosophy of Education,* says that the underlying idea in the home is obedience. This implies some kind of government. We may be surprised to have it said that such a rule obtains in the modern home. "Independence" is the word that is suggested as a substitute to express the conditions of government in some of our most modern homes, so-called. In any event, the students here considered may doubtless be brought to see the necessity of some kind of government in the home, and that, while obedience is perhaps the best and most essential law, this law is fittingly realized when its reciprocal, authority, is tempered by parental affection and parental consideration. There is a very prevalent idea among adolescent children that the authority of parent or teacher is one of meanness and arbitrariness. At this time the personality of the boy or girl is expanding so fast that he is somewhat naturally inclined to regard any kind of government that touches him as a galling yoke.

It will be well, therefore, to dwell briefly on the justification of authority in the home, and the source of the teacher's authority in the school. Trace the latter back to the board of education and from them to the patrons themselves,

who have delegated them, showing finally that the teacher is under contract to rule the school. It is exceedingly important that the teacher make out a clear case of justification for his exercise of authority in the school. In the connection we may show that a public official is really a public servant pledged to execute the law; also that the teacher himself is one of these servants, and under contract and pledged to teach and govern the school, and guilty of violation of his contract if he fail to perform his duty. Thus give civil government a conscious meaning in the minds of the pupils and they will be rendered more amenable to the discipline of the school.

The Departments of Government. It is now time to bring up for consideration the fact that we have three departments of government, and how each is constituted, and what it stands for. The state government will serve best to illustrate these matters. Make the pupils' slowly expanding conception of government as concrete in its reference as possible by helping them to understand the meaning of legislative, judicial and executive departments of the home state government. During the biennial session of the state legislature follow in the newspaper with them the doings of that body and read in their hearing some of the text of an interesting bill. If the state capital is within easy reach, a visit to the galleries of the two legislative halls will be most profitable. Remember that it is this knowledge of acquaintance that makes it possible for pupils to think in relation to the lessons learned. So, the judiciary

can best be studied in the same way. It is not enough for pupils merely to commit to memory the statement that "The judicial department interprets the laws," although they are often given ten on examination for making this statement. What does "interpreting the laws" mean in actual practice? All reasonable provision must be made for the members of the class to visit the various courts and witness the proceedings there. The police, justice, district and higher courts should be visited once each if a visit to them be at all convenient.

The Various Forms. After a careful inquiry into the real workings of these lower forms of government the mind of the learner will be prepared to consider national affairs. First, however, one or two other matters should be brought to his consciousness. Review briefly the meanings of the different forms of government, monarchical—nominal and real—bureaucratic, democratic, and the like. Make especially clear the meaning of a republican form of government as distinguished from a pure democracy. And, then, show how one sphere of government authority may exist within the domains of another—for example, the city, township, county, and state, each supreme within its own limits of jurisdiction, and yet in a sense subordinate to a higher form. After these observations are made it will be an easier matter for the student to understand the true nature of the one and the many referred to in the motto of

The United States. The study of the foundation and the meaning of the national government will naturally glow

with a light of its own after the kind of instruction outlined above. There is little more to be written on the subject. With the history of the country fresh in the young students' minds and proper patriotic feelings aroused in their hearts, they may be expected to enter into conscious relation to their own national government. The federal constitution may now be taken up and analyzed effectively. But the great gain growing out of the use of the method, and the one the author is most anxious not to have the reader overlook, is on the side of memory. The student taught by this method will not find it necessary to strain himself in order to remember what the constitution says in exact words, for he can think intelligently in relation to its utterances, and this fact itself means a good memory of its substance. The constitution of the United States has become a part of his permanent knowledge.

In considering the various clauses of the federal constitution with reference to the rights and prerogatives of the several states and of citizens of the state or of the nation, it is best to proceed in the manner outlined above in the discussion of the three departments of government. That is, give every important clause all possible reference to current and recent events and to present conditions. The simple application of the interstate-commerce laws with reference to the manufacture, sale, and transportation of some familiar commodity or luxury will serve as an illustration. Such matters as the rights of a citizen of one state in the territory of another state; the federal jurisdiction over gov-

ernment lands, or the Indians, or the liquor question; the contentions of two adjoining states over the waters of a river; the extradition of criminals; the differences in railroad passenger rates; the workings of the government experiment stations—some of these matters will have at least a local reputation to the members of almost every school. The teacher who keeps in touch with current events will naturally interpret history and the constitution in this refreshing manner, but the one who does not study current history will cling to the old, cramming method of drilling and training the pupil to "remember just what the book says."

Teaching Patriotism. Finally, the matter of teaching patriotism will come up for a new kind of interpretation. The usual method of arousing patriotic sentiment through the study of various wars is perhaps worth much, but there is no doubt a diminishing series of values of this character as the study proceeds from the early wars waged in defense of liberty and independence to those carried on in behalf of conquest and aggrandizement. Then, there is to be added to this the very common practice of celebrating as holidays the birthdays of our national heroes and statesmen with appropriate exercises. In order to keep alive and to intensify patriotism legislative enactments in some of the states have required that the flag be kept floating over the school buildings on all but stormy school days. All of these practices are doubtless of some value in instilling patriotic feelings by way of suggestion and imitation.

But true patriotism has its source in different principles of procedure and is not necessarily taught so directly. If the pupil be brought up in a good home where all the necessities of life and health are supplied and where intelligent parental care is exercised in safeguarding the child's character; if this same child be taught to obey and to work, and to achieve in proportion to his years; if the laws* of the school in which he studies, and of the state and nation in which he lives, be administered in accordance with principles of strictness and justice and equity—then, it is evident that the growing youth will naturally learn to regard these institutions as sacred, and his heart will beat strong in their defense. He will be a real patriot. Anarchy and disrespect for law are bred in exactly the opposite way: by carelessness and indifference of parents in their treatment of children in the home, where evil habits are acquired; by the failure of teachers to require strict obedience to just and impartial rules in the school; by the insincere and irregular manner in which public officials execute municipal and statute laws, and the like.

We must learn to live more nobly and more intelligently, and then the true sentiments of patriotism will naturally become evolved in the minds of the young who are reared among us.

* It has been suggested that, as a means of intensifying the pupil's conscious relation to law and order, there be organized in the school a moot court with all the necessary officials, and that some minor misdemeanors against the rules be tried by it. If carefully conducted, such a trial as this might profitably be substituted once a month for the Friday afternoon rhetoricals.

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CHAPTER XVI

PHYSIOLOGY AND HYGIENE

Purposes of Instruction. Among the most apparent purposes for which instruction in physiology and hygiene is to be given may be mentioned first the care and protection of the body.

During his growing years the pupil, if in normal health, feels so exceedingly buoyant that physical debility is scarcely conceivable to him. Especially during the periods of adolescence and youth he is inclined to dissipate his energies with all the lavishness of a millionaire spendthrift. It will, therefore, be somewhat difficult for both parents and teachers to convince him that the pleasures of middle life and the serenity that may belong to old age are going to depend much upon the manner in which he treats or mistreats his body while young.

A second purpose here, and it is only a corollary of the first one, is the direct care of the health. Every intelligent person must in time become his own chief physician. That is, he must learn to understand so well the laws of his own organism that he can, by taking care, preserve for himself that continuous good health which is the natural right and possession of one who is well born. Not only

must he understand these laws but he must be led into the practice of them until they become fixed habits. It can be shown that the body responds to these desirable, well-acquired habits in a way that tends to preserve the physical health. Physicians contend, on the other hand, that if, for example, a child could be subjected to sudden changes of temperature resulting for a few times in sore throat, this result will become a habit. That is, the same kind of exposure of less degree of intensity will afterward be necessary to bring about the same unpleasant result.

A third purpose of the study is that of preparing the body for the endurance of a reasonable amount of strain and work, and this implies some knowledge, on the part of the teacher, of the principles of calisthenics. So there must be created in the mind of the child a desire for a well-developed, symmetrical physical form and for such a seasoning of all the muscles through intelligent exercise as will make bodily endurance possible. "Big, soft baby," is the term often appropriately applied to the sixteen-year-old youth or maiden, and physical collapse under the strain of hard work is likely to be the future experience of such a one. In relation to the study of physiology and hygiene, therefore, the teacher must be aware of every possible opportunity to exemplify the matter of training the body for endurance. The ideal in this respect is that the pupil first have the desire for a strong, symmetrical physique and that he form the little habits of conduct necessary to secure this end. Clear distinction must be made here between mere

awareness of the necessity of doing a thing and the habit of doing it. The really educated pupil does not merely know that he ought to sit and walk erect, and take full breaths of pure air, and exercise certain parts of the body, but he has been led into the habit of performing these acts.

A fourth purpose of the study of physiology and hygiene is to enable the learner to observe and use intelligently some of the simple mind-body relations. The pupil in the public school should be made to realize that fatigue and painful ailments are a hindrance to study, and that any misuse of the body will prove to be detrimental to the most effective use of the mind; and that rest and relaxation and exercise and work all have important relations to mind-development. The successful teacher will know much about these matters and he will help his pupils to understand their simpler meanings.

Methods of Instruction. The few suggestions given below will relate to the presentation of the subject of physiology to beginners.

Begin with the pupil's interests. He is the starting-point of every well-taught lesson. As a good illustration of this point there is given below an outline handed in by one of the author's students in pedagogy, Miss Mabel A. Thompson. It follows:

INTRODUCTORY WORK IN PHYSIOLOGY

(Primary, First Lesson)

I The first work in physiology must necessarily be done by the teacher. Let her tell the children the lesson to be learned in an interesting yet very simple story form, avoiding all

technical names and terms, which the child would not understand.

II Her aim should be,—

1 To teach the child lessons of temperance, cleanliness, neatness, how to exercise, what to avoid, etc. Of course only one thing should be presented at a time.

2 To interest children in learning about their body, and to interest them in taking the best care of it.

III For the first lesson let the teacher tell a story to the class, about the body in general, the curious house in which we live, its wonderful make-up, etc. Let her emphasize the fact that we must care for our body if we would be well. In the following lessons she must teach them *how* to care for the body, for hygiene cannot be learned too soon.

PHYSIOLOGY FOR THE PRIMARY PUPIL

(General)

I Ends of the lesson,—

1 To interest children in the human body.

2 To teach some important rules of hygiene.

3 To teach the names of different parts of the body.

II Method of reaching ends,—

1 Let the children take some simple physical exercise, bringing into play as many muscles as possible. Let them be varied, so that they will not become monotonous. From the first especial attention should be given to those closely connected with hygiene, such as breathing exercises. See that the children are interested, or they will obtain little good from such exercises.

2 As the children go through the exercises, incidentally they should be taught the names of the joints, as the wrist, elbow, knee, ankle, etc.; the divisions of the body into head, trunk, and limbs. Later, if you wish, the names of a few important muscles may be learned.

3 As soon as the children have commenced the physical exercises, which might well be given at times when the children showed restlessness, the teacher may spend a few minutes a day, or every few days, telling the children stories on physiology,

in some such way as presented in the "House Beautiful," or "The House I Live In."

4 But in the primary grades hygiene needs the especial attention, and children should be taught correct habits of sitting at their desks, of standing, and of breathing. Even if breathing exercises can be practiced for a few minutes once or twice a day only, yet gradually the habit of correct and deep breathing will be formed.

Keep Out the Morbid. Bloody specimens of beeves' hearts and the like have little place in the elementary physiology class. The charts and possibly the manikins, which should be a part of the equipment of every school, will be sufficient for purposes of illustration. One of the most foolish and inexcusable acts the author has ever known to be committed by way of physiological demonstration was mentioned in a teachers' class by the demonstrator herself, who said, "I dissected a live frog in the presence of the whole school." Now, the frog may be a mere automaton and dissection not cruel, therefore, in reference to the creature itself, but there could be no better way than the one described to teach children directly the practice of cruelty to animals—a sort of thing that is already too inherent in the nature of boys.

Not only bloody dissections but startling stories of heart failure, details of murders, and the like, must be kept out of the schoolroom where there are growing children, for young persons are very sensitive in their nervous responses to such descriptions. It could be shown by means of delicate instruments used in the psychological laboratory that frightful stories at least temporarily weaken the heart action

of the hearer, lowering the vitality of his body and making it just that much more susceptible to some kinds of disease. It is pretty well agreed now that the severe cold which leads to many of the throat and pulmonary diseases is merely the result of a temporary lowering of the vitality. Sometime we shall learn that bodily health is not merely a matter of partaking of wholesome food. There is no wholesome food for the body that is suffering from the shock of some kind of morbid excitement. What is nourishing food for one person proves to be veritable poison for another because of the latter's physical derangement, his body, as a result of a morbid condition of mind, not being prepared to receive it. Teachers need to know more than they do about what may be called healthy-mindedness, and about the art of developing such condition in their pupils. Many mature persons may be found to-day who have an unconquerable habit of worrying about some danger or calamity dreaded for the future. "Full of fear all the time about something that might happen but never does," is the way one intelligent physician puts it. Such morbid, depressing conditions of mind interfere in some degree with perfect healthiness of body and they are a serious adverse commentary upon the methods of some parents and teachers who have charge of the development of the growing mind.

Use Simple Terms. When a small boy, the author learned that there is a muscle called *orbicularis oris,* and another called *occipito frontalis,* but he cannot recall now that anything in the nature of profit or pleasure has ever

been derived from this knowledge. It has been a dead weight all these years upon his memory. He believes that this latter statement is true for much of the terminology in modern texts in physiology and that memorizing such things is a waste of time. There must be a sharper distinction made between methods of teaching physiology to young pupils and methods of presenting the same subject to medical students. After the student has become familiar with (1) the most common bodily functions; (2) how to proceed in the case of certain serious accidents; (3) the simple rules for caring for the body day and night, and (4) the kind of thinking that is most conducive to bodily well-being, he has about all the necessary practical knowledge of physiology and hygiene. Under these conditions his bodily functions will probably be performed better if it seldom occurs to him that he has a heart, or a stomach, or even an *orbicularis oris.*

Be fair as regards alcoholic stimulants and narcotics. One of the most common faults of the teaching profession is lack of moderation in reference to the evil effects of using these things. The fact is that thousands of good men use some mild alcoholic beverage in moderate quantities all their lives without any very serious effects being noticeable, and we teachers must frankly admit as much if we are to instruct the young mind intelligently in regard to such matters as drunkenness. Indulgence in the use of stimulants and narcotics probably would not be looked upon as a dire evil if all men kept it under intelligent control.

But warning will come to the student in proper form if he can be shown by specific example how the drinking-habit, for example, often grows into an overmastering one, reducing an otherwise good man to poverty and degradation, and causing untold suffering to innocent persons. Combat this evil, then, by means of illustrative examples rather than exaggerated generalizations.

About the most difficult matter of this nature for the teacher to handle is the question of smoking. Millions of good men, representing practically all the callings of life, are smoking to-day what they call good cigars. Many of them are the friends and relatives of us teachers, and the fathers of our best pupils. For several years past the author has been investigating carefully the smoking-habit among boys, and has written and talked somewhat extensively upon the subject. The example of the smoking man is a powerful one in its relation to the boy. The latter naturally wishes to take it up, but to do so will mean almost certain injury to both mind and body, and a resultant loss of power to achieve success in mature life.*

This question must be a divided one. Smoking does not seem to hurt the majority of grown men much. Although the practice is somewhat selfish and unclean, and very expensive, the smoker derives therefrom a soothed feeling of the body and a happier frame of mind. But in the case of boys this habit is most deleterious in its results, if begun early. There are at least half a million puny, sickly cigar-

* See the author's article, "The Cigarette-Smoking Boy," published in pamphlet form by the College Press, Manhattan, Kans.

ette boys in the United States, most of whom are destined to rank low in mental, moral, and business efficiency all their lives. Records of nearly twenty-five hundred of these boys who are attending the public schools show that the great majority of them fail in their classes and drop out before finishing the seventh grade, and take up some kind of subordinate work, or try to, and that they tend strongly toward other kinds of dissipation. A comparison of the college records of fifty young men with the grades of fifty others who were non-smokers resulted in a difference in the average of seventeen and one half per cent in favor of the latter. The smokers showed more or less serious affections of heart, eyes, nose, throat, lungs, stomach, and nerves, and were in many cases thin, gaunt, and pale.

It is probably never advisable to tell a boy that he shall not be allowed to smoke, for the very manhood in him may thus be called up in resentment of your order. It is better to make an appeal to his sense of honor and thus lead him to resolve voluntarily that he will not take up the practice. It is often practicable to offer him a reward for total abstinence until he becomes of age or finishes his education, with a statement that he may then do as he pleases about the matter with your full consent. It must be remembered that with a proper incentive the ordinary boy can easily resist the temptation to *begin* a bad habit, such as cigarette-smoking, but that he may become powerless to discontinue the habit after it has once been thoroughly formed.

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CHAPTER XVII

GENERAL EXERCISES

Music. The work in the public schoolroom cannot be complete without some kind of music daily. The nervous organisms of children are so sensitive to the mere cadences of music that even their bodies are often swayed responsively. But such responsiveness of body is always accompanied by a like responsiveness of mind. Under the influence of appropriate music the trend and the subject of thought are changed and one becomes at least temporarily a new creature. So here is suggested one of the great aids that music may furnish to the well-being of the school. It purifies and unifies sentiment and thus furnishes an excellent beginning for the school session.

Some Specific Values. But many laboratory tests have brought out the fact that music has a number of more specific values for both the mature person and the child. It has been found that the one who merely listens attentively to pleasing music is affected measurably in the bodily processes. The heart tends to be accelerated or retarded in its movements in sympathy with the musical strains, and the respiration shows like changes. There may be at one time a soothing, quieting effect and at another a heightening

of the tonicity of the whole body. There are times when the soft strains of a high-grade musical selection may be the very best means of bringing about just such bodily relaxation as is requisite for the maximum of mental efficiency. It has even been recognized for a long time that by virtue of its soothing effects upon the nerves, music has certain curative properties. It unquestionably relieves many a tense nervous condition so that nature's work of recuperation can go on faster.

But, over and above the mere sensuous pleasure it furnishes the hearers, the music of the schoolroom may be made contributive to the processes that are more particularly educative. It was stated above that the trend of the hearer's thoughts is changed, and this implies the necessity of the teacher's knowing how to select suitable music. A highly appropriate opening song sung by the members of the school will naturally have two results upon the mind of the singer: (1) He will feel at least temporarily the absence of any disinclination to take up the lesson tasks of the day and (2) if the sentiment of the selection is just such as it should be, he will feel himself impelled toward that work that is before him, and even during the course of the singing he will naturally frame in mental sentences certain resolutions of courage and good cheer. And this, again, is another aspect of that mental attitude of the learner, which has already been insisted upon so much as one of the indispensable prerequisites of good work in the schoolroom.

Under the influence of the well-selected and the well-rendered morning song, then, it may be said that the pupil forgets the little exciting incidents of the preceding moments on the playground, that he relaxes those parts of the body somewhat overstrained and fatigued in the play exercises, that the work of lesson-getting and lesson-reciting is made to seem inviting and even enticing to him, and that he is filled with mental resolutions which are at least equivalent to his saying, "I *will* and I *can* perform my lesson tasks."

The reader is asked to consider the statements just made with unusual care, for in them is outlined in a brief way the all-sufficient warrant for singing in the public schools. It is not to be considered a matter of mere passing entertainment, *but of bringing pupils into right relations to their lesson tasks.*

The Teacher's Musical Ability. Now, the foregoing discussion may tend to discourage some in that it may seem to imply the necessity of the teacher's being a singing artist. Such, however, is not the case. While it would be unquestionably an advantage to the teacher if he (or she) were highly specialized in voice-culture and also an all-round music teacher, such combination of talent rarely exists in fact. So, the teacher can do well in the capacity of chorister if he possess merely a mediocre voice along with the proper tact and psychologic insight, as may be indicated below.

It is probably too much to say that the common-school

teacher must have had special lessons in voice-culture, although such training would be of very great assistance in the schoolroom. It is hoped, however, that no school board will knowingly employ a teacher who is not even able to carry a tune and to lead pupils in the singing. The wide-awake teacher can do much to improve the conditions of his voice and the quality of his singing by paying strict attention to every well-trained vocalist he hears. Let him note carefully the manner of articulation, of breathing, and of forming clear tones. And, then, he must miss no opportunity to join the first singing-class that is formed in the neighborhood, even if the instructor be not a highly specialized artist.

Then, add to a fairly good voice that can form clear non-nasal tones in the front of the mouth, an earnest, enthusiastic manner, and an attitude of self-confidence, and you have the beginning of a leader in the song exercises. But this leader must step confidently before the school and with something that answers for a baton—at least the extended hand—beat off rhythmically the time of some familiar tune. The teacher who can do this at the very opening of the first day will thereby show possession of one of the strong points of control over the school. The baton movement must not be so conspicuous as to attract attention, but only sufficient to keep the voices together. It is not wise to wave the baton high and to gesticulate wildly and otherwise imitate the manner of the great professional orchestra leader.

The singing in the schoolroom must not only engender a good feeling among pupils but also impart a wholesome sentiment. Old-fashioned, long-meter, melancholy hymn-tunes that make one feel as though he were at a funeral have no place in the schoolroom. On the other hand, quick, vivacious tunes, with words that speak in concrete pictures of love and life and growth and courage and work —these will help put the child into the best possible relation to the tasks of the day. That is, by means of the singing, eliminate morbid-mindedness and develop healthy-mindedness. Do not let the tune drag and never sing a good song until it is worn out. Stop before you have quite enough of it, and it will always preserve its refreshing sentiment for the singers.

The able leader will frequently stop the singers in the middle of a verse in order to give some drill or explanations. Much of the sentiment of the best song poem will not be appreciated by the young singers until the meaning has been explained by the teacher. Go over the words of the poem in detail and ask questions and invite discussions about them until all are enabled to catch the best sentiment of the expressions while they are singing them. Every reasonable effort must be made to induce all to sing, but such effort will consist in making every one *desire* to sing rather than in the least manner forcing any one. The whole exercise must be marked by good feeling and spontaneity. It is a mistake to place the best singers in a conspicuous group and to have it known or felt that some

are not welcome in their efforts. While there will be a very few who sing out of tune and out of pitch, their discords will not be very noticeable. Let them remain with the whole group, and do nothing more than, perhaps, ask them privately not to sing too loud.

The teacher who understands the psychology of singing will find it an interesting exercise to attempt in private to develop tone perception in this class of defectives.

It is practically impossible to secure a song book that contains enough good selections to last a school for one year. Almost any book of school songs will contain a few such pieces and many cheap and rather trashy ones. There is danger of wearing out the few good songs and tiring the pupils of the whole exercise. This common fault must be avoided by having a large variety of pieces. One of the ablest chorus leaders ever known to the author always discontinued the practice of a selection while the students' fondness for it was still at its height. This was one of his secrets of keeping up a remarkable interest among the members of his class.

There may be time and ability in case of some schools to teach scientific music-reading along with the singing. If so, well enough, but in the great majority of the common schools such is not practicable as a daily exercise and it is found necessary to teach songs by rote. So far as effects on discipline are concerned rote singing is more important, although it is desirable to have pupils read music independently. Pupils will learn a song "by ear,"

as we say, with perfect readiness and with a high degree of correctness if it is so presented to them by the leader. That is, they will imitate it almost perfectly in all of its modulations and cadences. A little drill on articulation of the words, and manner of breathing, and certain tone qualities, will help to make the results more satisfactory. It is well to show by specific example how to bring the tones out clear and full and how to avoid guttural and nasal effects.

Make a scrapbook of good, enlivening school songs gathered from every possible source. Introduce every selection by placing the words on the blackboard and having pupils copy them in their song-poem notebooks. Then have the piece played through carefully a number of times on an organ or piano, if possible, with the emphasis on the soprano. Or, if there be no instrument in the room, sing the selection through for the pupils and drill them on the tune, repeating a portion at a time. They will soon be singing it lustily.

There are extant many excellent school tunes of which the words are not appropriate for school use. Revise the words or write new ones, or have the songs rewritten by some able person who has the real school spirit. The words of the song must convey in simple language an appropriate sentiment.

Some illustrations of suitable song verses are given below. Observe the quickening sentiment of each and that it is appropriate to a particular season.

ROBIN SONG*

I

I HEARD the robin singing
His happy morning song;
I saw his helpmate bringing
Their breakfast to the young;
And to me came a whisper
In words that softly fanned the trees:
If God so loves the robins
Will he not care for thee?

II

I saw the roses growing
In beauty day by day,
No queen in all her glory
So lovely in array;
And on their leaves were written
In words of love and trust for me:
If God so clothe the flowers
Will he not care for thee?

AWAKE AND AWAY

I

THE morning light flingeth
His bright wakening ray,
And as the dawn bringeth
The work of the day,
The happy heart singeth
Awake and away.

Chorus

Awake and away!
Awake and away!
The happy heart singeth
Awake and away.

* From *The Morning Hour*, published by Ginn & Co.

II

No life can be weary
When work is delight;
Though evening be dreary,
Rest cometh at night,
And all shall be cheery
If faithful and bright.

MORNING SONG*

I

TRILL, bird, upon the appletree;
Hum, bee, over the rose;
Laugh, brook, ripple in melody;
Sweet little buds, unclose!
Wave, grass, out in the valley wide;
Leap high, grasshopper gay;
Dear flowers, never one chalice hide,
Summer will never stay.

II

Gold wheat, rustle and wave again;
Cool wave, glitter and sigh;
Soft breeze, merrily sing again;
Under the deep blue sky.
Play, lamb, out in the meadow now,
Glad hearts, joyfully call;
Bright sun, dimple the shadow now,
Heaven is over all.

UNTOLD*

I

AMBER hued clouds with your edge tipped with glory,
Sailing away, sailing away,
Wait while I tell you a beautiful story,
Tell it to-day, tell it to-day;
But the cloud disappears in a chariot of gold,
And my story is ever untold, untold.

* From *Happy Moments and Woodland Echoes*, published by the Echo Music Company, Chicago.

II

Gay little brook dancing on like a fairy
  Down to the sea, down to the sea,
Just for a moment I ask you to tarry,
  Listen to me, listen to me;
But the brook ripples on and its pebbles grow old,
And my story is ever untold, untold.

III

Golden clouds passing and silver brooks flowing
  Laugh in their glee, mockingly flee;
Breezes from meadow and mountain side blowing,
  Blow now for me, blow now for me;
And the years wrapt my heart in a shadowy fold,
And my story will never be told, be told.

The Devotional Service. In nearly all the states of the Union direct religious instruction in the form of sectarian doctrine is forbidden by law, as it should be, but there is usually no prohibition of the proper kind of simple religious service. The majority of teachers doubtless feel the need of some such service at the morning opening and realize its value, but the occasion often calls for an unusually fine sense of fitness. In many schools there are children of Jewish, gentile, Protestant, and Catholic sects, and the devotional exercises ought to be of so general a character as at least not to offend the ears of any of them, and, if possible, to be pleasing and helpful to all. It is much to be regretted that some teachers show so little consideration for the feelings and sentiments of children representing smaller religious sects, for example, the Hebrew. They are often guilty of conducting the devotional

exercises after the fashion of the revival meetings they have been attending at nights—frequently too much for the good of the school. The members of the school board who know their duty best will call such teachers to account.

A simple passage of Scripture, or some other good literary selection, is admissible, but it should be intended to inspire all and to offend none of the pupils. This may be followed by a simple prayer. The Lord's Prayer may sometimes be suitable, but the daily repetition of it soon becomes a mere formality and the effect ceases to be good. What is perhaps better is a little thanksgiving and a humble petition for the needs of the day. Avoid monotony in this service, for non-attention is sure to follow. What is most to be desired is to unify the conscious feeling and sentiment of all the pupils in relation to something that is high and inspiring and ennobling. A short, well-told story, a special piece of music, or a reference to some unusual little incident of the day, may serve best to secure attention and to prepare the minds of the pupils for the fuller appreciation of the sacred readings about to be given.

Current Events. An important feature of the general exercises of practically every school is the lesson to be drawn from current events. Two classes of lessons are possible here: (1) those that merely inform, and (2) those that awaken a moral sentiment.

For lessons of the first class—such matters as wars actually in progress; terrible catastrophes like the eruption of Mount Pelee, or the Italian earthquake of 1908; such great

undertakings as the construction of the Panama Canal or the drainage of the Zuyder Zee, are examples of suitable topics. But the event must be one actually current, or something that has just taken place. Suppose that a terrific earthquake has just occurred. Let the teacher give some of the details of its work of destruction and then present or have presented, not later than the day following, a short account of the notable earthquakes of history and a brief statement of the best modern theory as to their cause. A series of very interesting lessons could be furnished by a discussion of the work of our national government in the behalf of various industries. For example, take the experiment stations for agriculture and animal-husbandry, the government forest preserves and irrigating plants, the signal service bureau in reference to the weather, the army and the navy, the government lighthouses and life-saving stations.

Much of the data necessary for the intelligent discussion of the topics last named can be obtained from almost any good modern cyclopædia. The progressive teacher will doubtless have access to such a work. Some of the discussion can be given by certain of the more advanced pupils, under the teacher's direction.

Moral instruction must not be given too directly. Experience and observation have both shown that mere exhortations to do good and admonitions to be good, may have little or no value in directing the character-building of the young. There will have to be an unusually strong attach-

ment between you, the teacher, and William Henry, the boy, if he carries out effectively your scheme of conduct for him. The truth is, he must make out his own moral judgments by inference from what you and others say and do, and he must put these judgments into execution in a way that he feels is his own and not yours, if he is to develop into a strong moral character. Current topics will furnish much of the raw material to be selected and worked over by the teacher, and presented in such form as to enable the pupil to draw his own moral inference. This matter seems too important to be passed over with a brief outline here. It will be given extended discussion later.

The Rhetoricals. One of the greatest informing and character-developing forces in the public schools, if rightly conducted, is the rhetorical exercise, for it not only admits of a very wide range of self-expression on the part of the pupil but brings him into many new and trying situations that are rich in experience-giving. The "Friday Afternoon Exercises," often so-called, can and must be made one of the most profitable parts of the course of study, and it is not disproportionate to give an entire afternoon each week to the matter, provided there be thorough earnestness and good organization in relation to the work.

It is perfectly right for pupils to look upon this as a sort of holiday period giving freedom from what they consider as the grind and the restraints of every-day school work. The teacher can make it such for them by simply

allowing two or three little liberties not permitted during the regular school exercises: (1) Permit pupils to sit where they please so long as their conduct is fairly decorous. (2) Grant them the liberty of whispering excepting while a part of the program is actually being given.

The pupils will best effect their literary organization under the teacher's mere direction and advice. See that a full set of officers is elected and that each performs his duty in an appropriate manner. After the president has been elected the teacher will take a back seat and act as a sort of supernumerary member of the society. The pupils must feel that this is chiefly their own affair and that they are to enjoy all liberty consistent with good, effective work. The society must be given a good name and must have a stated purpose, both of which can be brought out by general discussion. Parliamentary rules must govern during the entire course of procedure.

Unless the teacher exercise much care and forethought the program is very likely to develop into one of nonsense and trivialities. So, without seeming to assume direct control over the work of the society he can reserve certain privileges: (1) Let him hand to the committee a skeleton program, something of this nature:

1 Select four debaters, two for the affirmative and two for the negative.
2 Appoint four members to give recitations.
3 Have two or three musical selections.
4 Appoint one person to give a news report.
5 Name a critic.

(2) The teacher will have it understood that he is to pass judgment upon every selection that is intended to be given. Pupils must consult him about the selections before they begin to prepare them. There is one rule at least that should always guide him in determining the worth of the proposed parts of the program, namely, Permit nothing to be given for the mere sake of amusement, but yet allow much that is amusing. This is a negative rule. A positive one is, See that the selections for reading and recitation and the musical numbers are all of the highest possible quality. It is necessary also for the teacher to take active part in choosing the subject for debate.

It will be understood by the pupils that they are to be required to take part in these rhetoricals and to make passing grades just as in the ordinary branches, before they will be promoted. There will be much backwardness in the case of some, and it will be the duty of the teacher to hold up the weak hands. Some pupils who are placed on the program for debate, for example, will doubtless show very great disinclination toward such part. The teacher will, however, permit none to be excused from this requirement. The pupil may be requested to take his place before the school and state the question for debate, and if he "sticks" at this point the teacher may ask him an easy question of opinion about the subject. Ask him a few questions that require not merely "yes" or "no" for an answer but short statements. The ice is now broken and the pupil may be given a passing grade

for having at least tried, while the attempt will be easier and more fruitful next time.

The value of these rhetorical exercises, if rightly directed, cannot be too highly estimated. They afford just such experiences as will best lead to the discovery of talents not brought into use by the other work of the school. Each member will soon begin to show a preference for presenting a certain part of the program and something of a dislike for other parts. They perhaps may be permitted to indulge the preferences to some extent, but it is very well to give each member of the school the widest literary experience possible under the circumstances. A certain boy may be apt and willing at reciting, but very backward about debating. It is well, however, to require him to take his turn on the debate. There is no certainty that he will not develop strong talent in this direction after he has made a start.

Of course, it is impossible to compel pupils to sing if they have no vocal ability, but a little tact on the teacher's part will be the means of discovering much latent vocal talent. The pupil's disinclination is often the result of mere timidity. There should be no higher standard of excellence for the vocal music—the solos, for example—than for the other parts of the program. The teacher who has had vocal training will himself know that there is often much progress to be realized as a result of a little earnest endeavor to bring out the young voices in solos, duets, and in larger groups of singers.

Bring the Friday afternoon exercises up to a high standard of dignity and excellence by eliminating silliness and trivialities in the form of dialogues and Punch-and-Judy performances. Admit all visitors, but do not allow the pupils to think of this work as a mere matter of showing off. If the school is large enough, it may be well to divide it into two societies of equal strength and numbers and to encourage a little healthy rivalry by comparing the total points made by the two. As each performance is graded by the teacher, this will be an easy matter.

PART III

MORAL INSTRUCTION

CHAPTER XVIII

THE TEACHER'S PERSONALITY

Indirect Instruction. The discussions to be offered in the third division of this book will be based on the assumption that moral instruction is not to be given in any such direct manner as instruction in geography, for example, but by indirection and suggestion. There is something in the nature of the child that makes him indisposed to profit by any one's moral preaching. Those who try to live upon predigested foods have proverbially weak stomachs, possibly as a result of too little invigorating exercise on the part of the organs of digestion. So with those whose moral conduct is worked out for them instead of by them. The strength-giving exercise that comes through much experience of trial and error in finding a higher way is a prerequisite of moral stamina. The strongest character probably is the one who during his years of growth has worked out his own salvation under the quiet, uninsistent direction of some one wiser and maturer than himself.

Many adults and most children yield readily and willingly to the direction and influence of those who are their real superiors in mind and morals. But children are quick to detect shamming and other evidences of lack of intrinsic worth in their elders and teachers. So it is thought proper

to consider the personality of the teacher as one of the first and greatest factors in moral instruction in the school. The chief items in this account of the teacher will now be enumerated.

Fullness of Experience. One of the most common handicaps to successful moral culture of public-school pupils is the youthfulness and meager experience of teachers. We teachers have not been in enough predicaments of our own to have ripened into firm, substantial characters. Many of us have not been seasoned sufficiently through hardship and deprivation and suffering to have acquired anything like the type of consciousness that the ideal teacher might reasonably covet. Alternating experiences of success and failure, of joy and sorrow, of hope and despair, of physical wholeness and suffering, of peace and antagonism, of spiritual ecstasy and broken-heartedness, of faith and doubt, of a consciousness of the presence of the Immanent Spirit and a sense of the loss of our own soul—these are some of the part-processes of the rounding-out experience which finally culminates in a kind of cosmic consciousness that finds kinship in every sentient creature.

He who has climbed the mountain by means of his own efforts can appreciate the height much better than the one who has been borne up by some outside power. This self-attained ascent has been attended by much weariness, and longing, and slipping back, and despairing, and renewing of courage and effort. The greatest life is full of bruises and losses and failures *overcome*. There is much danger that our goodness will be of a merely negative

character—that is, the mere result of having been borne along and upward easily and pleasantly rather than of having been tempted, and tried and finally triumphant.

A teacher is none the worse, if during his years of development his character possessed many imperfections, provided he has overcome them. Doubtless there are many types of bad conduct from the effects of which one can never fully recover, but the author's theory is that it is well for one to have had all the possible adverse experiences which one has been able to meet successfully. For one is then best prepared to interpret the consciousness of the delinquent characters he meets, both in school and out. Such a person will be free from that type of goodness which is mere innocence; he will know better what to look for in the character of the pupils that come to him and what they may reasonably be expected to develop into under his guidance.

A Broader Sympathy. This fullness of experience outlined above for the ideal teacher will result in a wider range of sympathy on his part. To sympathize is to suffer with, and that means to be conscious of the mind and feelings of another from having been in his place. It means, moreover, full sympathy not merely for the pupil who suffers wrong but for the one who *does* wrong as well. It is difficult to be fair to the evil-doer and so easy to condemn him point-blank. But is he not entitled to the same just and patient consideration as the well-doer? Condemn the deed rather than the doer. Enlist the strictest disapproval of the act, in the minds of the other pupils,

but encourage their heartiest sympathy and their best wishes for the reform of the actor, and his reform is practically assured.

The author's first teacher was a splendid, noble-minded young man who passed to the Great Beyond more than a quarter of a century ago, but many of his moral lessons doubtless are still alive in the hearts of his pupils. On one occasion a twelve-year-old boy violated a rule of the school by throwing a stone, which seriously injured a little girl. To make matters worse, the lad stoutly denied his guilt. The teacher handled the case admirably. He tried to show the young members of the school the utter uselessness and the evil consequences of lying and lawbreaking, but he said not a word in personal denunciation of the guilty boy. Just as we thought the case was finished and that the boy had escaped, the teacher drew forth a good, stout switch and administered, seemingly without passion, a sound punishment. The other pupils regarded the whipping as just, although they were sorry for the boy and were glad to take him back into good standing as a member of their society. The effect of the punishment upon the particular boy and upon the other pupils was unquestionably good, but its goodness was derived chiefly from the teacher's sympathy for the wrong-doer.

Tolerance. A further ingredient of the ideal teacher's personality is tolerance, and this follows in logical order after the other two just mentioned. Over-readiness to condemn the evil-doer without hearing or trial is a fault that is too common both in school and out and it is sug-

gestive of immature judgment to say the least, while it is little better than condoning the evil. A happy mean is perhaps the safest. If there is any error of judgment, it had better be on the side of the accused. To be slow and deliberative in judgment, to extenuate about three fourths of the guilt on the basis of the culprit's own story, and then to punish him dispassionately but justly and thoroughly for the other one fourth, and afterward to treat him with all the respect and courtesy due the best pupil in the school, is perhaps the fairest rule of procedure in dealing with every misdemeanor.

If the teacher could but realize that most pupils desire to do good rather than evil he would withhold his denunciation until a given case is analyzed. Every act, whether good or bad, has its history in the life of the actor. The boy who, for example, steals another pupil's book ought to become an object of careful study. So ought the one who steals in examination. A sixteen-year-old high-school girl was suspended for a term for cheating in examination. The principal, who was not himself a worthy example in every respect, thrust the girl out with a harsh expression of intolerance. As a matter of fact, the girl's mother laughed at and indorsed her cheating. The young woman was sorely in need of affectionate counsel and advice and sympathy. Such a case as hers might seem at first almost hopeless, but even the mother might have been led to see the matter in a different light had she been invited to a conference.

The world is not all bad. Even the pessimists realize this fact. In truth, good conduct is such a commonplace

thing that we hear little said about it, while evil is so comparatively rare that we make it the subject of our news reports and the topic of our consideration. It is *news*. Now, while the teacher must be somewhat tolerant of evil, and fair and deliberative in his judgments of the evil-doer, he can easily be too tolerant in the presence of pupils, for they are likely to be led to the inference that evil-doing is a very common thing and to be regarded as a matter of course. This careless attitude toward evil will increase the possibility of their becoming evil-doers. So it is certainly important that pupils be reminded of the fact that, although we hear and read much about wrong and corruption, the great masses of the people are sound at heart and are going on daily in their quiet, unobserved practice of righteous deeds.

Consistency and Frankness. It is not necessary that the teacher be an absolute model of perfection in manners and character. He certainly has a right to some shortcomings. But the pupils must know that he has high ideals, which he is striving consistently to realize. He must throw aside all useless pretensions and affectations and be frank enough to acknowledge before his pupils an occasional mistake, accompanying his acknowledgment with an expressed determination to profit by means of the error. Such a disposition is one of the valuable attributes of the personality that is strong and influential with pupils.

Some years ago, after a certain young teacher had finished one term's work with fair credit and was about to begin another one in the same school, she almost startled

her pupils with a frank confession of the specific mistakes she had made during the previous year. In concluding her remarks, which had evidently been carefully prepared, she said in substance: "But we now look to the future for better things. You, too, have had your shortcomings, but doubtless you are resolving as I now am to profit by the errors of the past. I have not done one half so much for you as it was my plan to do or one half so much as you deserved. I must be more faithful, more patient, and more courageous. But I cannot carry out the highest ideals which I hold for you without your best wishes and your hearty coöperation. These I earnestly desire and expect to receive from you."

It is needless to say that practically all of those seventh-grade pupils were pleased with the expression of sentiment from their teacher and that they were more than ever ready to make her aspirations a realized fact by means of their conduct in the future.

High Ideals. The teacher of strong, effective personality can overlook and forgive the many little shortcomings manifested daily by the pupils, for he looks not upon the things that are seen but upon the things that are not seen; for the things that are seen are temporal, but the things that are not seen are eternal. This text has wonderful potency for the teacher who applies it understandingly. Though the manners and expressions and dispositions of every boy and girl in the schoolroom are marked by crudeness and worse imperfections, he persistently regards all these imperfections as the unrefined, undeveloped conduct

of young creatures who are, in their essential nature, divine and immortal. This point of view concerning the child gives him a remarkable advantage over the teacher who looks merely upon the things that are seen and regards children as being nothing more or better than their childish manifestations.

This attitude of mind gives the practical idealist hope and faith and courage to press on, even while others are in the midst of despair and disappointment. His faith is very soon rewarded, too, for even young pupils are quick to become aware of the teacher's unshaken faith in their intrinsic goodness and to respond accordingly. It is almost an impossibility for a boy to go on telling lies and living a lie in the presence of the teacher who by a kind of divine instinct can see and magnify the truth that is written in his soul. In him there is almost certain to be an awakening in behalf of truth-telling and truth-living. Who has ever known this law to fail? In fact, what mature person can very well persist in evil-doing in the presence of his best and truest friends, who constantly look for and confidently expect manifestations of truth and righteousness from him? We not only find evidence of what we look for in a person but also help to make the thing looked for a reality in him. Sometime we teachers shall become aware of the true meaning of this great law.

Self-Knowledge and Self-Mastery. The teacher of strong and influential character knows his own strength and his own weakness, and is constantly at work upon his self-mastery. None is so strong that he does not experience

temptations of some kind. The one who is the greatest source of inspiration and help to his pupils is such not because of freedom from temptation so much as because of his ability to resist and to overcome temptation. In order to be at his best one must be comparatively free from every kind of excess. The particular shortcoming may be merely procrastination, or a habit of mental laziness during working-hours, or a disposition to overwork. Or, again, it may be a habit of running about at night attending various kinds of entertainments. All these minor excesses both positive and negative are usually known to the pupils and the latter are noticeably affected by them.

The teacher who enters the schoolroom in the morning blear-eyed and sleepy from the dissipations of the night before is mistreating his pupils as well as himself, and the work of the day is likely to go on badly as a result. His good health and buoyant feelings are a part of the working capital of the school and the pupils have a legitimate right to their use every day. While partial nervous exhaustion resulting from late hours is occasionally unavoidable, it is astonishing how some teachers allow it to become chronic. Such teachers should be asked to resign.

Along the pathway leading to self-mastery and self-knowledge lie the small duties of attention to one's personal diet and the matters of sleep and rest and outdoor recreation, and to an orderly arrangement of the work outside of the school. A maximum of mental efficiency and an economy of time are ends to be sought. One can easily overeat to the point of sluggishness and oversleep to the

point of drowsiness, so that, in the case of a teacher, his moral influence upon the school is impaired for the whole day. It is evident that the efficient moral teacher must be a clean, wide-awake, enthusiastic person, possessing a good, clear eye, and a bright, open countenance. One may be surprised at the extent to which the eye will clear up and the countenance brighten under the influence of regular, temperate habits of living, and clean, spiritual habits of thinking. Sensuality is certain to tell its own story in the facial expression. Young pupils cannot, of course, read its signs in the faces of their teachers, but they are nevertheless markedly affected by them.

Twenty years ago there was known to the author a teacher who was naturally able and intelligent, but who sat up till one o'clock every morning playing cards in a down-town office and came moping into the schoolroom late and sleepy nearly every morning. His many moral maxims and bits of good advice were worse than wasted upon his pupils. He was really an object of ridicule.

Firmness. A weak, vacillating character is in no sense a moral force in the community at large, and, if possible, much less of one in the school. Pupils are quick to detect the lack of determinate purpose in a teacher and are ever ready to make a plaything of him. His weakness often grows out of a laudable ambition to please everybody connected with the school, but unless carefully guarded such ambition will lure one into all sorts of entanglements and result in his pleasing almost nobody. The so-called hedonistic law in ethics holds that pleasure is the chief goal

of life, but that those who start out in the direct pursuit of happiness soon find they are chasing a phantom. This same law holds good with reference to pleasing people. The one who makes this the end of his action is destined to disappointment.

A certain well-educated young man, a high-school graduate, on beginning his first term of teaching in a district school stated his purpose thus: "It is my intention to try to please all the patrons and pupils of this school and to avoid giving any offense." Before the close of the first three-months' term he was asked to resign and did so, the charge being that he had no control whatever of the school. There is only one safe rule to follow in the administration of school affairs, and that is, First determine carefully what you believe to be the right course of action and then follow it out with all the force and persistence you can muster. Then, trust the results to a higher power, for they will surely be on the side of righteousness. Moreover, the good people of the community will respect you and will rally round you and support you in every good undertaking. No evil force can successfully confront a sane, well-balanced, righteous person enlisted in behalf of a righteous cause.

In the case of the teacher who is possessed of the kind of determination just described, it will be found that there is a charm about his manner and personality that easily elicits from pupils both respect and obedience. He is firm but gentle and affectionate in giving directions to the school, and those under his instruction delight to do his will. It soon becomes apparent that such a teacher is both pleasing

to a majority of those interested in the school and a strong positive force for good, as well.

Spiritual-Mindedness. The last and most admirable constituent of the interesting personality of the teacher is what we might call spiritual-mindedness. It grows out of the daily practice of nourishing the mind upon things that are high and uplifting and upon deeds that are noble and inspiring. Some have said that it is brought about by the habitual contemplation of the subtle meanings of song and poetry, while others have maintained that the best way to acquire it is to "go forth under the open sky, and list to Nature's teachings." It comes from the ever present consciousness that "there is a divinity that shapes our ends, rough-hew them how we will," say others. And still others would have you go alone to some quiet place and sit in the silence until you receive "an unmistakable message from a Still Small Voice which shall guide you into all truth." Browning expresses this superb kind of consciousness most suitably for some in his "Abt Vogler"—

To whom shall I turn but to thee, the ineffable Name?
Builder and Maker, thou, of houses not made with hands!
What, have fear of change from thee who art ever the same?
Doubt that thy power can fill the heart that thy power expands?
There can never be one lost good! What was, shall live as before.

* * * * * * * * * *

All we have willed or hoped or dreamed of good shall exist.

The great philosopher Kant was ever inspired by the "starry heavens above and the moral law in man."

In any case, it may be regarded as exceedingly helpful

for the teacher if, in connection with his steady, sober-mindedness relating to the so-called solid facts of life, he possesses in his nature a generous element of the poetic, æsthetic, and idealistic, to give his fancy wholesome entertainment between his more serious moods, and to engender in him what we might call healthy optimism. Every one must find his own peculiar way of attaining spiritual-mindedness. Suffice it to here say that in the opinion of the author this attribute is one of the necessary constituent parts of the teacher of greater personality. Then—

> Arouse the soul within
> And yield thou to her wooings, till she crown
> Thy brow with fortitude, thy breast with peace,
> And whisper secrets of divinity,
> That lie unuttered in the depths of thought.

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CHAPTER XIX

MENTAL ATTITUDE OF THE PUPIL

Developing Sentiment. It is not sufficient that the child be led into the performance of certain acts that are regarded as moral. His silent, voluntary thoughts must be in reference to moral acts to be performed in the future whenever the proper occasion arises. The utter uselessness of merely compelling a child to do right will be apparent here, so far as character-building is concerned. The teacher is therefore urged to use every reasonable means of securing a strong moral sentiment among his pupils. If the work of bringing about a proper mental attitude on their part be done thoroughly, their outward acts will tend to take care of themselves on all ordinary occasions.

Let us suppose that a certain boy commits a theft and is detected in the act. Now it is earnestly suggested that the best way to deal with such a matter is publicly before the school. Condemn the sin heavily and the sinner but lightly, as suggested above. Give no details as to how the theft was committed, as other boys predisposed to this kind of evil might receive unfavorable suggestions therefrom. Emphasize rather the pitiable plight of the offender and the uselessness of one's trying to gain a genuine advan-

tage by means of stealing. The culprit must be punished fully and justly in accordance with the nature of the wrong, but nothing need be said to make him an outcast from the society of the other pupils. The punishment is not so much for the sake of a warning to other possible offenders as it is for the sake of the one punished. He must, if possible, derive from his experience a new idea as to what is best for him to do in the future.

The chief excuse for trying, and rendering a verdict upon, such a case before the whole school is that the pupils must be made more conscious of the evil consequences that necessarily follow such an act. Not only must the act be stripped of all its possible allurements for any other would-be offenders, but it also must appear as positively revolting to them. Then, and only then, will they make out in their own minds their future conduct in case of temptation to do such a wrong. Many temptations, great and small, attend the pathway of every youthful traveler on life's highway. In all cases of temptation there are just two kinds of preparation that serve as effective means of resistance: (1) Habit, i. e., the habit of doing something that in its very nature contradicts and therefore counteracts the force of the particular temptation, though it is scarcely practicable to develop in a growing child specific habit of conduct to counteract every arising temptation. (2) The child's predetermination. Here, then, is suggested the value of dealing publicly with every offense If the matter be handled rightly, every pupil old enough to understand the nature of the deed and its consequences *will*

resolve within himself how he will avoid such an error whenever occasion arises.

Now, as the author understands the matter, this is moral instruction of the most direct and valuable kind possible. Every act, good or bad, has its antecedent in some instinct or impulse, or in some acquired habit or predetermination. "As he thinketh so is he." There is grave danger that the young teacher who does not understand the real nature of the method of moral instruction outlined above, will obtain the result directly opposite to the one desired. The method pursued by any wrong-doer must be dwelt upon with as little detail as possible. Literary periodicals often become in some measure text-books of crime. Not long ago a certain well-known magazine published a detailed account of how the professional thief carries on his art of robbing flats in cities. This was a precious lesson for every young student in the school of thievery and thousands of his class doubtless profited by it. The teacher can easily commit the error of detailing the method of the wrong-doer rather than the unprofitable consequences of the act.

Pointing Out Pitfalls. It certainly is not good pedagogy to point out dangerous pitfalls to the young and show just how people get into them in order that the youthful wayfarers may not err therein. There is to the average youth something attractive and even fascinating about the forbidden way. He is ever desirous of giving it a trial and confident, too, that its entanglements cannot hold him. Just how much temptation to place before the child and from how much to keep him away is always a problem. His

character unquestionably grows strong on temptations overcome, and weak on those yielded to. So the rule of practice should evidently be, Give him all the temptation he can possibly and certainly overcome, but no more. Our modern society calls for a certain ruggedness of character, but this ruggedness can be brought about only through varying experiences. There occurs in the world daily much sin and wrong-doing. The growing child must not only witness a certain portion of this but in some measure become a participant in it. In a certain sense we learn to do good by doing evil. We must have walked more or less innocently into some pitfalls, but if we have come out of them whole and unspotted it is likely that some one who had oversight of us was at hand to give us just the assistance or direction we needed.

The rule in this case is like unto the one suggested above, viz., Allow some freedom of rein to the pupil who is anxious to acquire the experience on his own account, but follow him through it and see that his recovery is complete. Some parents, over-anxious for the well-being of their children, seek a means of giving them private instruction and of keeping them away from the contaminations of the public schools, but it is usually found that without the experience of roughing it among the pupils of the common school the child is inclined to grow up with certain eccentricities of character that render him unfit to enter freely into our common society. True, there are quarrels and fights and the use of coarse expressions and other kinds of objectionable conduct in the schools. But the child must be thrown

into the midst of these adverse conditions and his well-being safe-guarded until he has grown strong on their very account. Children who are rightly taught and inspired may in time take pride in the resistance they learn to offer in the presence of evil temptation. The best and firmest character waxes strong on temptations consciously overcome. That is, the possessor of it gradually learns how to bring about his own self-development.

In connection with carrying out what was urged about emphasizing the evil consequences of wrong-doing it would be well, where practicable, for parents and teachers to take children of proper age to visit prisons, reform schools, and houses of correction, in order that these young persons may gain some idea of the punishment and suffering of those who have become depraved. It is not at all wrong to lead the child to feel pity for those who are bound. This can be done best by dwelling upon the fact that the youthful inmates are taken away from home and parents, if they chance to have any, and locked securely within the walls of the institution.

Some Mental Effects. The object to be desired is that those under instruction resolve strongly to refrain from the evil of which the dire consequences are made apparent to them. But this is only the negative side of the thought process. There must be, also, a well-defined resolution in behalf of the good conduct that is to take the place of the bad. Now, for example, if the boy in the reform school be supposed to have got into trouble as a result of stealing and lying, the teacher may reasonably ask, Why did he

steal and lie? Of course, his evil acts might have resulted from either inherited or acquired dispositions, but in many cases it will appear to the young on-looker that they were committed in order to gain some coveted prize or advantage. Now, the point which is so often overlooked or not thought of by the teacher is that the lesson is not complete till the child is led to determine in his mind just how the wrong-doer might secure the desired ends in some legitimate and praiseworthy manner. "Wise forethought is the father of every worthy deed," is a maxim written somewhere. So not only must the learner give mental assent to the inference that some specific deed is bad, but he must also predetermine as definitely as possible how he is to avoid the bad deed and to perform a good one that will secure the end desired.

The directing and drawing power of the mind that is already made up in reference to any given type of action is such that, when the tempting situation arises, the result is more than likely to be on the side of the preconceptions.

Holier than Thou. The fact that the teacher or parent is doing everything possible to enable the child to arise above every kind of wrong-doing does not require that the latter be trained to despise and hold in contempt the wrong-doer. A vain and supercilious nature can easily be developed in this connection. Our country is at least in theory a democracy, and if there are in fact some among us who have the proud, overbearing natures and the snobbishness of the Old World nobility, such may be a result of our false methods of training. One does not necessarily lose any of

his own self-respect and sense of decency in being courteous and respectful to every person he meets on terms of acquaintance, no matter what the station in life of that person may be. It is insisted again, therefore, that in deprecating evil the teacher must place the emphasis upon the act rather than upon the person.

A certain amount of love and sympathy, and even pity, for those children whose deeds are evil, or whose manners are crude, or who are in any sense down in the world, is not a hindrance but a help to good character-building. A well-educated father talked repeatedly to his children about those "filthy little miscreants" in the school, and warned them not to have anything to do with the "little scamps." He was fond of making odious comparisons in favor of his own children, holding the others up to contempt. As a result the former grew to maturity possessed of an extravagant idea of their own superiority. They held themselves aloof from most other children and were nearly always thoroughly disliked thereby. Nothing short of severe trial and suffering will ever reduce such persons to that comfortable, inspiring level of common humanity where they can realize that all the world is akin to them.

The Spirit of Democracy. This world is a good place in which to live, partly because of the existence of human kindness and sympathy, and everything that helps to develop these divine attributes in the young is certainly a part of moral instruction. So, as a rule, it is better to create among pupils the feeling of their interdependence. If they can be made to realize that the best interests of each are in

many senses the best interests of all, and that they are therefore workers together in a grand common cause, viz., that of developing a higher human character, the results will naturally be most satisfactory. There is altogether too strong a tendency in the schools to array one pupil against another. The spirit of rivalry may easily be carried too far and much envy and hatred result. It is almost impossible to carry on any kind of contest for prizes without stirring up much ill-feeling. The author does not believe contests to be worthy incentives to good work among pupils of the common schools. A child can be induced to try just about as hard to outdo himself as to outdo another. He and the other pupils can engage in common cause against the only real enemy they have, viz., their baser natures, and thus may be engendered a beautiful spirit of mutual helpfulness and sympathy in the place of envy and strife.

Rewards and Prizes. The old-fashioned practice of giving prizes for superior excellence in some particular kind of school work is unquestionably bad in its moral effect. Those who receive the direct intellectual benefits are usually few of the many in the school, and the effect is often that of making these few vain and foolish, while others, who are defeated in the contest, are certain to have some of their noblest feelings crushed. Has the reader ever known of one of these prize contests that did not result in a net loss to the moral standing of the school? The principle involved is wrong, because thereby is set up an absolute rather than a relative standard of excellence.

The only system of schoolroom rewards that can receive

full moral sanction is one that will allow every pupil to win in accordance with his merit, and his merit is determined in each case by the amount of earnest, conscientious effort put forth. The pupil who would win the prize according to the absolute standard of judging may exercise the least effort, and may for many other reasons rank low in the scale of intrinsic worthiness. On the other hand, there may be in the ranks a child of very ordinary ability who is showing most commendable effort and most satisfactory progress. The heart of the true teacher goes out to just this kind of slow but diligent and conscientious pupil, and to overlook him in the awarding of prizes, in favor of the other one naturally so bright, is an injustice too gross to be tolerated. A kindly word of sympathy and approbation quietly spoken in the ear of the earnest little worker, so that his good heart will beat just a bit warmer and stronger, is the best reward that can possibly be offered, and when we think how inexpensive such a reward is, and how it tends to make the teacher's own heart grow big with affection and kindliness, we wonder why it is not offered more frequently. Perhaps teachers are too busy hearing recitations.

Private Talks. In an effort to develop the best attitude toward the work of the whole school in the minds of the pupils one is often called upon by duty to administer a private rebuke, but not a few teachers lack the moral courage necessary to administer it. If it be the first duty of the teacher to discern that which is good and promising among the latent possibilities of the pupil, and to bring that

up to the point of growth and realization, it is certainly a further duty for him to observe that in his young protégé which is bad and objectionable and to try to suppress it. One of the most effective means of suppressing an evil tendency in a pupil is to call him into private council and to tell him frankly but kindly of the particular fault.

There is nearly always a comforting belief in the mind of the wayward pupil that his faults are not fully known to the teacher, and he proceeds on his way on this assumption. To disabuse his mind of this error is the teacher's first corrective measure. Besides being in the nature of a revelation to the offender, such correction of his wrong idea is often a means of inducing him then and there to array all the best there is in him against the very wrong he has been committing. There is usually at first a sharp sting for both parties in the case, but shortly afterward both may be seen pulling together in the interest of reform. How much better it is affectionately to join hands with the unruly child in his endeavor to reform his character than to administer an open rebuke and to lose his good will to the extent that he may later increase his practice of wrong-doing, just for spite!

When but a child the author was under the instruction of a teacher who made a practice of calling the unruly boys "fools" and "stottenbottles" and other coarse names. The boys were constantly plotting to retaliate and during the intermissions there was devised many an evil plan for breaking the teacher's rules. As a result of this teacher's ineffective method of dealing with petty offenses many boys who

otherwise never would have thought of such things were drawn into the controversy just to down him.

Pupils like to know that they are observed and thought of by the teacher who is perfectly fair with them, and even the offending boy is very much inclined to admit the truth about his own conduct in a private conversation with such a fair-minded person. There is more honor among the so-called "tough" boys of the school than they are generally given credit for. Many of these boys are in no sense sneaks; on the contrary they are often so open and courageous in their offending conduct that they may at times be converted into powerful exponents for the right.

A certain high-school principal learned that one of his brightest fifteen-year-old youths was smoking a pipe. Upon being confronted privately concerning the matter the latter confessed that he had begun the practice months previously "just for fun." "But," said the principal, "I have been referring to you as a worthy example of the ideal student. This thing is very disappointing to me. There is entirely too much good in you to admit of its being obscured in this way. Wait until you are a mature man and then smoke if you must, but do not now, for the sake of your honorable standing in the school. Remember, I am your friend and I expect to stay by you till the last, but it is harder for me to do so under such circumstances." "I did not know you were taking any such interest in me," said the boy in reply. "Here is my hand. I'll quit!"

This splendid boy remained true to his pledge, but it would have been a very easy matter to drive him in the

other direction by a little public denunciation. If the teacher can work himself into a genuine feeling of friendship for the boy or girl who is low in the scale of moral conduct, and will in addition to this privately pledge everlasting fidelity to his charge, the battle is already half won.

The Awakening Consciousness. Gradually the true, earnest teacher finds his way into the life of every class of pupil that comes into his charge, and he finds therein many undeveloped resources and latent energies that give unfailing promise of a new creature. The work of discovering the hidden beauties of the soul in young moral delinquents becomes in time, to him who has the proper insight, both fascinating and inspiring.

The bad boy of the school; the wicked little miscreant, bowed down with the weight of long-continued public condemnation and self-denunciation, and possessing no clear conception or image in his mind of what good conduct really is; this boy who is in every sense ignorant and lacking in experience of the good—is it fair for you, fellow teacher, to join the ranks of his denunciators and thereby assist in keeping him down? May not this poor, benighted youth be capable of at least vague heart-yearnings and longings after that which is noble and high? And are you not really to become a beacon of light unto this little stranded wayfarer until he shall be landed safely upon the shore of higher inspiration and truth? I appeal to you in the name of the very worst and wickedest boy in your particular school. Make him your confidant and companion, and thus win him everlastingly for a better and a higher type of life.

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CHAPTER XX

THE RULES OF THE SCHOOL

Policy of School Government. In mapping out a policy of government for the school, it is well for the teacher to have two or three matters prominently in mind: (1) What ends are to be sought? (2) What rules of conduct are necessary to reach these ends? (3) How can these rules be made operative with the least friction?

The Ends to Be Sought. It might be fair to say that the ultimate aim of government in the school is the perfection of human character. But this statement is too abstract to have any considerable value for the ordinary teacher. Let us consider, then, some of the less remote but more concrete ends to be attained through discipline. First of all, it is to be desired that the school government be of such character as to assist to the fullest possible extent the work of learning. We may say that there must be comparative quiet during the daily sessions, and also the least possible strain and excitement for pupil and teacher during working-hours, and little friction between the two. Such conditions would be at least rather ideal for the intellectual work. But that these ideal conditions are to be broken into is soon to become apparent, for the second immediate aim of discipline is to assist the child by means of his own

experience and observation—which also is experience—to find his true place in the society of the school and in the larger society outside of and beyond the school. Man is a social creature, but he becomes truly social only through long experience of contact with others.

Now, if the foregoing statement concerning learning from experience be acceptable, it becomes apparent at once that the most helpful and desirable kind of school government is one in which the quiet order of things is broken into by an occasional conflict, or strain in the relations of its members.

The healthiest school atmosphere is one which is now and then disturbed by a quarrel, or a fist fight, or a flagrant violation of the rules, or all of these. There must be some such stirring event occasionally as an object-lesson for teacher and pupils. The former grows strong in school management through dealing judiciously with such matters and the latter acquire through their experiences a better means of adjustment to the actual conditions of society. So, be it held that, if any one of these matters comes to issue and is dealt with in a successful manner, the entire school is benefited by the experience—provided it does not occur too often.

Few Rules. Set rules, especially if enacted at the beginning of the school term, are likely to be a kind of affront to some ill-disposed pupils. It may be most advisable, therefore, to announce a rule only when the occasion actually necessitates it. It has been found most profitable to have the fewest rules possible and to enforce

these few strictly, publicly repealing every one for which there is no longer a necessity. This statement embodies one of the secrets of easy school government. Anarchists are made rather than born, and not a few of them are made in the loosely governed public schools. The boy who is permitted to ignore the rules of the school because no particular harm comes from the violation is on the way to lawbreaking on a higher scale, and is therefore being mistreated by the teacher.

A concrete illustration will be of assistance here. The boys' and the girls' playgrounds are separated by a line fence. It has been found necessary to announce that no one shall throw missiles across from one side to the other. At the next intermission two boys throw stones over among the girls, but little is said about the incident because no one is injured. Other violations are ignored in about the same way till one boy finally throws and hits a little girl, inflicting a wound. This act angers the teacher and the unfortunate lad is soundly trounced, *because he accidentally hit the girl.* The matter was treated unfairly by the teacher. The very first offenders against the rule ought to have been punished so that another violation probably would not have occurred. Teachers are slow to learn that strictness in enforcement of rules means that violations of rules will constantly become fewer, and the necessity of punishment less frequent. It is very unfortunate that some teachers can punish violations of the rules only when something resulting from the offense arouses their anger. Nature's laws are inexorable and we soon learn, therefore,

to fall into harmony with them. If the exactitude of nature were more closely observed in the enforcement of the laws of home and school and state there would be a tremendous falling off in criminal conduct in all these institutions.

Certain Rules Inadvisable. While it is inexcusable to permit offenses to go unpunished, it involves the teacher in serious difficulties to have a rule that in the very nature of the case cannot be enforced. The old, oft-violated rule against whispering has perhaps been the means of developing among pupils more embryonic liars than any other one ever enacted in the school, and this on account of the difficulty of detecting its violations. "Whoever whispers during the recitation hours will have to stay in after school. —John, were you whispering?" "Nope!" "What were you doing?" "Studyin'." And then a giggle is heard. It would be preferable to offer a general objection to unnecessary noise of any kind that will disturb the quiet of the school and to proceed against any such disturbance at the moment of its occurrence. Matters will then gradually become more satisfactory.

So, before making a rule it is well to consider its advisability. Can it be strictly enforced? Is it conducive to lying and deception? Will it require much espionage on the part of the teacher? There are certain violations of the well-known rules of good conduct that may be dealt with summarily by the teacher without his having made announcement concerning them in the school. These rules will gradually formulate themselves in the minds of the pupils if the teacher does his part thoroughly. This discussion

naturally leads up to an important phase of school management and moral instruction.

The Sentiment of the School. It has been held by many students of human affairs that no law can be successfully enforced unless it be backed up by public sentiment. This principle applies in a certain sense to the school, but it does not mean that the teacher is first to learn what the sentiment of the school is and then legislate accordingly. It is his business to develop and educate sentiment in behalf of his just rules. This he does by explaining before the school the necessity and the meaning of every new requirement by appealing to the better natures of the pupils for a sanction of it. Once the entire student-body becomes arrayed against the head of the school, he has a long, serious fight before him. Here is a point at which tact is a most valuable asset. The majority of pupils must be called upon and depended on to coöperate in putting down evil among the minority, for the real offenders are nearly always few.

A coarse-natured, misguided boy of fifteen, an unwilling attendant at school, breaks into the building at dusk and does considerable damage to the furniture and books. The following morning, after the pupils are assembled, all eyes are fixed inquiringly upon the teacher. What is he going to do about it? The first thing he might well do after speaking deploringly of the deed is to assure his pupils that he feels sure such benighted miscreants as its perpetrator are exceedingly rare in the school, and that he does not for a moment presume that any considerable number of his hearers are at all willing to sanction any such deed.

Now, this is the best method of organizing effective opposition to all serious offenses against the school. The better natures of the pupils must be stimulated till they are ready to cry out against evil-doing. Then, and only then, is the moral lesson in reference to this act imparted. The pupils not only are wrought up in opposition to the offense, but are making silent resolutions as to their own better conduct for the future in reference to such matters. They are arraying themselves without and within on the side of the good.

The Reformation. Just as soon as the culprit observes that the sentiment of the school has set in strong against him, he is certain to do something by way of restitution or reform. He simply cannot stand out long alone against his mates. Thus, there may be won a great victory over not merely one wrong but many of similar character. It is altogether right to talk optimistically to the pupils about themselves as above. It is unquestionably true that the better judgments of nearly all pupils prompt them to deplore and oppose all such offenses as that described. But it is the special function of the teacher, just here, *to find and bring to fuller consciousness these better promptings, which lie dormant in the pupils.* Their better natures, once discovered and made active, soon tend to grow strong and self-assertive. You need not be surprised to see the child thus trained taking in the future a firm stand on the side of right.

Punishment. Is punishment for wrong-doing reasonable and justifiable? The author has no hesitancy in

answering this question affirmatively. The idea of compensation prevails everywhere. With advancing years we gradually become convinced that one cannot get something for nothing, and that one who expects to do so is very likely to get nothing for something. While it is, perhaps, seldom advisable to lead a child to commit some foolish act in order that he may learn from its evil consequences, it is well for him to discover early through chance occurrence that evil acts must cause some kind of suffering somewhere, to some one. The fact that Nature is often slow to exact full payment for violation of her laws is no ground for the belief that she will not even matters up in due time.

So, the general rule that one should suffer the evil consequences of his folly and wrong-doing seems to be an inexorable law of nature and it is the rule that, under certain restrictions, must be operative in the punishment of children. Pain and suffering are great schoolmasters, but if a child foolishly or thoughtlessly, or even intentionally, attempts to do something that will result in permanent bodily injury to himself or others, the act must be averted if possible. "Let him learn. He will know better next time," is an assertion frequently heard when a child is seen walking into dangerous places, but if he is pointing a loaded gun at himself, or trying to get in the way of a passing car, there may not be any next time. The rule, then, might be modified thus: Let the child suffer the evil consequences of his intentional wrong-doing, or even when it be a matter of neglect or carelessness, provided, however, that you can be assured of his complete physical recovery

from the effects of the act, and provided, also, that there may result no permanent injury to his moral character.

A Double Wrong. Two wrongs are apparently committed when a teacher or parent in any way unnecessarily shields a child from the evil consequences of his act or neglects to punish him justly and summarily for it. Every time a child of understanding age is permitted knowingly, on his part, to violate a moral rule of conduct with impunity, he is being mistreated. He is thus being led into the belief that obedience to law is not necessary, and he is also beginning a habit that will sometime be very difficult to overcome, and that will lead him into very serious trouble. So, the teacher who permits evil to go unpunished is not only the first offender but the chief offender. He is himself immoral.

Manner of Punishment. The manner in which the pupil's evil act is to be returned upon his own head is to be decided in accordance with the merits of each particular case. Mature judgment and common sense are two of the best guiding principles. The teacher who depends upon some old notebook rule or formula for dealing with unruly pupils is usually the one who secures the poorest results. He is too mechanical. But let him throw aside the fixed formula and enter carefully into the merits of each case, and he will soon acquire wisdom in dealing with such matters. A firm, fair decision and a quick execution are best suited to produce the desired results and to reduce offenses to the minimum. One thing that indicates mature judgment and insight in the case of a teacher is his ability

to observe that every pupil under his charge is a particular individual with his own peculiar combination of traits and tendencies. There is as great a variety of characters as there is of faces. The immature teacher is disposed to regard his pupils as having been fashioned by nature after one or two patterns and as plastic creatures to be molded through instruction into one and the same character.

Then, what is to be done if a boy tells a deliberate falsehood? That depends on the boy. How should one deal with a girl who persists in writing silly notes in school? It depends on the girl. These two questions remind one of this algebraic problem: What is the age of a man who was born x years ago? In all these cases the data are too meager. The only responsible answer is: First know your pupil and then proceed directly and conscientiously to do your duty.

Corporal Punishment. There are as many kinds of punishment, therefore, as there are offenders to be punished. But there is one method about which something more needs to be written, viz., corporal punishment. Many are opposed to this method and never use it, while not a few municipalities have outlawed it altogether. According to recent inquiry, thirteen of the thirty-nine largest cities in the United States forbid corporal punishment, while twenty-six of them permit it in restricted form. In one of the great cities of the country the board of education passed an ordinance against "whipping or striking the pupil in any manner whatever." For a time after that some of the teachers resorted to pinching and shaking offending

pupils, until a second ordinance forbade "taking hold of or touching the person of the child in any manner for purposes of punishment." So, now the poor teacher has to be satisfied with using his tongue or gnashing his teeth, or both.

The author is a hearty believer in the old-fashioned Biblical maxim "spare the rod and spoil the child." There are times when unruly boys need to be soundly "licked," and when nothing else is quite so wholesome and effective. This method of punishment above all others must be applied carefully and judiciously. The greatest obstacle to successful corporal punishment is anger or the spirit of revenge in the teacher or the parent. So many are unable to inflict such punishment unless spurred on by the heat of passion, under which condition the good effect is worse than lost. In the ideal case, however, neither teacher nor pupil is angry. The punishment is a just judgment justly executed. In the other case it is more frequently a mean spirit of revenge, basely satisfied and more basely resented. There is often a running fight going on between teacher and pupils in an effort to "get even." The child that is punished justly and fairly and without anger may resist or try to avoid the punishment, but he will resent it little if any, and he is pretty certain to esteem his punisher more highly afterward, whether it be teacher or parent.

True Affection. If I understand and love my child, I may nevertheless be justified in administering to him affectionately a good, smart spanking. Let us suppose that I permit him to go across the way to play with other chil-

dren, with the express instruction that he is to return immediately at first call, and that he fails entirely to obey the request. Now, I go and bring him and lead him gently behind the woodshed, and after reviewing the case fully I warm him up in a very effective manner with a shingle. Then, in a kind, affectionate tone of voice, I ask him if he would like to return and play with the other children. "Yes, papa," he says. "Well, run on, then, and I will call you shortly." In a half-hour I call him again and the little fellow comes running promptly and I take unusual care to speak approvingly of him and otherwise to show my fondness for him. He has now received a splendid lesson in obedience and the tie of affection between us two is more than ever strengthened. He is almost certain to come to me within a few hours after his spanking and say in substance, "Papa, you are a fellow I like." A few more lessons of this kind and he becomes confirmed and habituated in his obedience and he and I shall probably ever afterward be confidential friends and companions in both work and play. There is only one rule of procedure in cases where corporal punishment is necessary: Do not in any case let it go undone, but be firm and fair and *affectionate* in administering it.

Tonic Effect. A little of the kind of procedure just outlined if applied to the school will have a wholesome, tonic effect. The boy who is the special sufferer will feel afterward a kind of soothing glow of comfort and satisfaction, and the other pupils will make some very wise decisions regarding their own future conduct. The teacher

will find in himself an increased fondness for his work and a growing affection for his pupils. This splendid feeling will be mutual, for pupils are inclined to think more highly of the teacher because of the fact that he exercises a firm, affectionate authority over them. Good fellowship and good studentship may now be expected to grow up together, all perhaps as a result of a teacher's having dealt wisely and courageously with one naughty boy, who actually needed a spanking. As to the boy, he is more likely to go on and grow in grace and good moral conduct and every other good thing. And, best of all, he will in the future reverence the old-time teacher and speak approvingly of the day when the latter "brought him to time and gave him a boost upward."

Wherefore, let the position herein set forth on the subject of corporal punishment be clearly understood. It is this: Most children may be managed by gentler means and their best natures brought into active expression, but there are always a few, especially boys, in nearly every school who as a last resort may be materially and permanently benefited by being subjected to the stinging effects of a good shingle or a keen switch. But the affair must be conducted in so cordial a manner that the participants will come out of it with both mental and physical exhilaration. Corporal punishment will then become a means unto salvation.

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CHAPTER XXI

DEMOCRACY IN THE SCHOOL

Conflicting Tendencies. One of the most substantial ingredients of our public and social life to-day is the spirit of democracy. Certain tendencies are constantly at work to reconstruct our society in accordance with aristocratic or caste distinctions, but these tendencies are counteracted by certain stronger and more permanent forces in current events. A number of the latter might be discussed here, but the purpose of this text will properly admit of the consideration of only one, namely, the public school. The public school and the newspaper are to-day doubtless our greatest socializing influences and it is through them that the spirit of democracy is kept alive. The position of the former is peculiar in that its influence over the individual is exerted while the latter is young and impressionable, and in that when it is through with him he has already become pretty well predisposed toward certain types of conduct. But first of all, let us notice some of the conditions in school and out that would naturally antagonize this democratic spirit.

The Beginnings of Aristocracy. The seeds of caste distinction are often sown in the home by the manner of rearing children, especially in homes where there are few

children and ample time and means of looking after them. At any rate, certain boys and girls will come to the schoolroom imbued with the idea that they are better than all or nearly all the others and that they are entitled to special favors. They will be possessed of a certain amount of haughtiness or superciliousness that cannot be mistaken by the teacher. One such child, a little girl, was heard to say, "Mamma told me not to play with those other children," and she stayed apart with another little girl whom the mother had doubtless singled out as the one suitable playmate for her child. A certain amount of self-pride is of course commendable, but it must not go to such extremes of exclusiveness. There is no reason why any child with all the good breeding and good manners of a refined home cannot mingle on equal terms with the common crowd at school for a few minutes daily without being contaminated. Moreover, it is contended that such a child if rightly managed will both give and receive much good in mingling with the others.

The first fault is committed when the parent tells the child in so many words, or in any other way leads him to believe, that he is better than all the others and that they are not fit to associate with him. He is by this teaching to some extent unfitted for the mature society into which he must in time enter, as will be clearly implied later.

Wrong Incentive. The young pupil takes his cue for exclusiveness and superciliousness not merely from statements and insinuations of his parents; there is not a little of the sentiment of caste and preferment in society around

him. Besides the self-isolated pupil as heretofore described, there are often sets and cliques who are self-opinioned and exclusive and who are accustomed to offend the feelings of the more ordinary pupil in many little ways. The common rules of courtesy and good manners are violated by these young scions of a pseudo nobility as they assume haughty airs and refuse to form common friendships. The wide-awake teacher will certainly take quiet cognizance of this strained and undesirable relation among young pupils and endeavor to bring about some kind of relief.

Further up in the grades will be found the juvenile members of the fraternities and sororities with their badges and tinsel and snobbishness. They are banded together for "purposes of intellectual and social betterment," as they say, and they even aim to help the weaker members of their group in their school work. Other worthy motives are named by them as justifying their existence. But school authorities are practically agreed that these organizations, which include students of the high school or lower, are positively detrimental to the best interests of education. Now, Boston baked beans constitute an excellent article of diet for mature and physically strong persons, but they are entirely too rich for infants and invalids. So with fraternal organizations. They doubtless subserve many highly beneficial purposes among mature men and women, but they have no proper place among adolescents and youths, where they often serve as a hotbed for all sorts of schemes and intrigues against the school government, and as a shield for many forms of dissipation and sensuous-

ness. It is a fortunate circumstance that many legislatures and boards of education are outlawing these youthful bands.

Over and above these childish fraternities just described, and furnishing them their sanction and encouragement, are the so-called "smart set" of social circles who assume an exclusive superiority on account of high breeding and correctness of clothes. Among them there is probably an unfounded pretense of wealth and much vain shamming of aristocracy. Such organizations may have justification for their existence, but they are not directly conducive to good morals and good comradeship and altruistic feeling among either the old or the young. If a member of this self-styled blue-blooded group—say a woman—undertakes to give her child any instructions touching his relations with ordinary children, it will be to remind him of his superiority to the masses. Perhaps the worst objection to the existence of these exclusive sets is that the very nature of their conduct in society is such as to throw many minor indignities into the faces of those whom they consider beneath their caste, as well as to brand with a conscious stigma many who strive in vain to acquire their rank. All this is conducive to not a little envy and jealousy and is a direct hindrance to the moral instruction of the schools.

A third incentive to immorality among young persons and a promoter of the aristocratic rather than the democratic spirit is the so-called "graft" in politics together with its legitimate offspring, the get-rich-quick method of amassing fortunes. Unfortunately, the very best method

of combating these practices—namely, publicity of their methods of doing business, and a resultant strong public disapproval—is such as often to throw enticements in the way of the young. For, the latter are quicker to understand the letter than the spirit of thrifty corruption and apt to receive evil suggestions therefrom. Not infrequently those whose wealth has been obtained by fraud and political intrigue are living under the guise of eminent respectability and high-caste distinction, both of which they have bought indirectly with their money.

These and the others named above are some of the most prominent and persistent obstacles to effective moral training in the schools, and it is these conditions and their representatives that the teacher must tactfully but courageously combat both in school and out. Specific reasons for taking a stand against these undemocratic organizations will become more apparent as the discussion proceeds.

Our History Democratic. The makers of this nation were inspired by universal principles of right and justice. A representative government in which there should be accorded equal rights to all and special privileges to none was their ideal. Favoritism in government, founded on the superficial character of mere wealth and breeding, was especially repugnant to them. The Revolutionary Fathers were as a rule plain-living, plain-speaking, God-fearing men. After these there arose many able statesmen whose devotion to the interests of the common people was made more effective by means of their matchless eloquence. Then came great ministers of the gospel of religion and of the new

light of freedom, and still later, influential newspaper and magazine editors. Lastly, there appeared in their turn great educators like Horace Mann Mary Lyon, William T. Harris, and Charles W. Eliot.

In all these centuries of the country's growth there arose many burning issues, some of which created serious divisions among the people. Notwithstanding the schisms in Church and State, however, there was always practical unanimity upon the theory that there was to be a government of the people, for the people and by the people. Discussions arose only over the special applications of the theory.

Now, the only motive in enumerating these well-known matters of history is to remind the reader that the spirit of democracy has always been predominant in the hearts of the makers of the nation. Also, it is desired to urge that a sound morality cannot be inculcated in our schools on any other than democratic principles. Just as soon as the teacher begins to bolster up and support class distinctions he is thereby opening up a vast amount of trouble for himself and for other members of the school, to say nothing of the injustice and the immoral aspect of his partiality.

The Real Nobility. Only one kind of nobility is to be recognized in the school, and that is the nobility formed of those who possess real, intrinsic worth. And in this case the emphasis is to be placed upon the attainment reached by honest striving rather than by inherited mental ability and advantages acquired through pecuniary circumstances.

Has this boy attained much through persistence and suffering and overcoming? Then, pin a badge of honor upon him and rank him accordingly among the young noblemen of the school. There is no more royal incentive to mental attainment and high moral standing among pupils than the knowledge on their part that every worthy effort will be recognized according to its true merit.

One of the most inspiring decrees of an all-wise Providence is that the pampered and spoiled offspring of over-indulgent parents are almost certain finally to be surpassed on account of these seeming advantages by the children of those who toil and struggle to maintain an honorable existence. The seasoning experiences of those who come up from the lowly walks of life are often the very means of their moral salvation and higher achievement in mature years. All that is best and most commendable in public-school work is achieved through patient trial and error. Not only the teacher but the pupils as well must learn to approve and commend this superior kind of achievement. They must also be ready at all times to put the stamp of their disapproval upon all false claims of worth and excellence. Such claims must be made unpromising to those who would make them.

Public Conscience. There is a passage of Scripture which says, "The heart of man is deceitful above all things and desperately wicked, who can know it?" This pessimistic statement may be true in a certain sense, but it is made less true by means of publicity. That is, the wicked purposes of designing men are likely to be given up when

once they are known and disapproved and strongly denounced by the public conscience. The past few years in this country have witnessed some tragic illustrations of what public disapproval can do by way of righting hidden wrongs done in high places. A number of prominent officials in both public and private institutions have been detected in their secret corruptions and have been literally overwhelmed by an avalanche of public denunciation. Some —at least two—have taken refuge in suicide, others have been fined and imprisoned; still others have expatriated themselves in order to escape from the anathemas of an indignant constituency. At least one highly reputed official, who was caught trafficking in the public confidences, since broken in health and spirit, has by the same means been brought to the verge of despair.

All this punishment has been terribly severe on the particular offenders, but they are comparatively very few when we consider the great throngs of worthy, honest officials, and their punishment has been a most effective deterrent to others who might be tempted to follow their example. So in the school there must be developed a strong sentiment in behalf of right and just conduct and against that which is wrong and unjust. The teacher can do little if anything when fighting for the right alone and unaided, but when assisted by the conscience of the pupils, properly aroused, he simply cannot lose in the fight.

Methods of Procedure. The chief weapon of offense and defense being publicity, it will be well to consider some specific modes of procedure. The teacher needs to be an

eloquent, tactful talker, and he will find it advisable to go sufficiently into detail, in bringing out the merits of each case, to make the point clear. Now, it was argued above that the proud, supercilious bearing of some public-school pupils is undemocratic and un-American, and indirectly immoral. If this be really the case, the teacher is called upon to set forth in clear, unmistakable language just the kind of worth that should be and is to be recognized in that school. It is not advisable or necessary to mention any names, but, nevertheless, all the pupils are aroused in behalf of higher ideals of conduct and worth. So, the first real lesson in morals is an exercise in *thinking* morally. In a short time the vain, aristocratic pupil will come down off his lonely, self-constructed eminence and will begin to assume the airs of the democratic citizen.

The fortified place of the larger group of select or strictly exclusive pupils must be undermined in the unobtrusive manner suggested above. The direct attack must if possible be avoided, for this often arouses the combative natures of pupils so banded together against what they inwardly regard as being for their best interests. One of the best ways to combat an evil disposition in the young is to make the desirable type of conduct more enticing than the undesirable one. The better feelings are thus aroused and these in turn solicit the will. By means of better sentiment gradually inculcated that little band of proud boys or girls, who would not mingle with the members of the other social classes, are brought into closer relations with the school. Their former position brought them no satisfactory reward.

It was not even combated, but simply made to appear to be of little worth. So they gave it up.

An eminent head of a great university molds the sentiment of the students not only by his public chapel talks but by private councils of small class and society groups or representatives which he calls and through which he works. His most effective method is not to take direct issue with any of these factions so much as to appeal to them for their coöperation and sympathy in bringing about certain desired results. This direct appeal, by the head of the school, for the assistance of the students, is certain to bear fruit. His position is often strengthened by calling for suggestions from them, if they are mature young people. On one particular occasion this worthy officer called together representatives of all the fraternities and said in substance: "We wish to bring about a better feeling in this institution, more of common courtesy and of the spirit of common good fellowship such as will affect favorably all who come here. In what ways can you help bring this to pass?" The friendly discussion that followed resulted in bringing those present to a fuller consciousness of the real situation and finally remedying many of the objectionable features of the university society. These student bodies usually mean well, even if they do not always do well. It is, therefore, nearly always better to work with them with a view to their transformation than against them with a view to their disorganization.

The Spirit of Work. Every pupil must be required to work until work becomes second nature for him, after which

he will have proper regard for the great toiling, producing classes of humanity. It is possible that public-school teachers ought to bear more of the responsibility than they do for the vagabondage in our land. The boy who is permitted to drag through the grades of the school without acquiring the spirit of hard, persistent study is being thereby mistreated, and he will in time become either an aristocrat—if he happens to inherit sufficient means—or a dependent. Pupils might as well learn from the beginning, through experience, that the work-a-day world in which they live is made up largely of plain "dirt and grind." It is then that they will discontinue seeking easy, inexpensive means of obtaining a livelihood and will acquire such a method of performing the arduous tasks of life as to relieve them of their aspect of drudgery.

The youth who, on account of rather superior intellectual endowments, learns his lessons at a mere glance, is frequently not so promising as the one who has to work hard for what he gets. The author recalls at least two of the former class who, now in middle life, are still looking, anxiously but with little promise of success, for some vocation that is both easy and profitable. But if the growing boy be given specific tasks to perform—such as require persistence and effort in accordance with his years and strength—he is certain to be more democratic and more moral.

Emotional Experience. Finally, the true spirit of democracy is fostered through a certain kind of emotional experience. True friendships grow out of close acquaint-

anceship. The pupils while properly at work and at play are coöperating with one another more than they are antagonizing one another. The spirit of rivalry is not given too free exercise, and so envy and jealousy are kept at a low ebb. Mutual helpfulness is encouraged to the extent that each one realizes that he is personally assisted by the others. It is not a great step for the pupil from this point to a habitual feeling of kindliness toward his fellows. Of course, cheap gossip and expressions of condemnation of others are to be reduced to the minimum. On the other hand, commendations, one of another, are to be encouraged among the members of the school.

During intermission, a nine-year-old boy of Miss B's room ran quickly across the street and closed a gate just in time to prevent a drove of cattle from getting in and ruining a beautiful flower bed and vegetable garden belonging to a nearby resident. Miss B., who knew just how to make a valuable lesson out of this little matter, encouraged two or three other boys, who were carefully selected, to go to the nine-year-old boy and say in substance: "Harold, it was very thoughtful of you to go and shut the gate and save that man's garden." It is precisely this kind of thing, brought about by the teacher's careful direction, that engenders among pupils that splendid feeling of affectionate regard for one another, and that tends to bring them to a common level socially. The proud, haughty child, who holds himself aloof from the others, must be led tactfully into some such act as this. The very experience of praising and approving the acts of others will tend to warm up

his little, cold heart and to make him a real, active member of the social group.

In short, the several members of the school must be brought gradually into the habit of looking for that which is commendable in the conduct of one another and of expressing their approbation. Thus will be fostered that splendid magnanimity, that inspiring cordiality, that true spirit of democracy, which is destined to make all the world akin.

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CHAPTER XXII

THE MORAL ASPECT OF ATHLETICS

The Child's Nervous Energy. The normal, healthy child has a remarkable overflow of nervous energy. But let him remain quiet only one short hour and this strange active power within him presses outward with wonderful force. This is Nature's way of forcing the young creature into almost constant activity during his waking hours. Play is at first impulsive, since it has no definite aim. The mere infant simply must kick and squirm and coo in order to relieve his nerve tension, but these little activities are entirely undirected. The nerve energy is simply breaking out over the paths of least resistance.

Directed Impulse. Athletic games and sports represent a studied effort to direct this play impulse into proper channels of activity and to secure therefrom certain interesting and helpful results. Some school authorities are inclined to regard athletic sports as a means of advertising and building up the school, as though these games had no better right to exist than that. Such persons fail to realize that some kind of organized play *must* go on in order to satisfy the natures of the young in the school. The pent-up energy peculiar to every ordinary child must have an outlet in some kind of activity that is good and beneficial to

himself and others, or it will vent itself in some undesirable direction.

It is the great possibilities of directing this impulse that make athletics an interesting subject of study here. It might be said that the impulse to play is at first comparatively indifferent to its subject-matter. What the physical organism calls for is sufficient activity to foster its growth, while the neural organism demands the satiety that comes from exercise and from the relaxation and repose that follow. After some experience in playing the ordinary child begins to manifest certain predilections as to the kinds of games to be played but he is usually willing to take part in those engaged in by the children or the older persons whom he likes best. He is naturally imitative, and after a little practice he may be expected to become an active, enthusiastic participant.

Morality and Strength of Body. One of the fundamental principles of moral culture in the young is to give them strong, healthy bodies through well-selected physical exercises. The child that is weak and undeveloped in body is weak-willed and at least unmoral, if not immoral. Or, conversely, a strong will means, among other things, the power to direct the body in the performance of many specific acts. A ten-year-old boy, for example, cannot even crook his little finger voluntarily without crooking one or two of the others in the same effort. His inability in this case is clearly a matter of inexperience, as it is in many an instance of so-called lack of will-power. But strength and skill and adroitness in the use of the body and its various

members are matters of much satisfaction and even of exhilaration to the young person possessing such abilities.

Being intimately associated with bodily conditions, the mind of the child has very strong but undefined cravings for satisfaction and exhilaration, and unless these cravings be satisfied in ways that are normal and beneficial, they will incite to abnormal or hurtful acts; or, what frequently occurs, they will settle inward and result in physical weakness, nervousness, and irritability. What a heavy reproach upon our modern civilization, so-called, that so many thousands of our young, who have all the inherited nerve structures of a child of freedom, should be cooped up in dark, dingy alleys and close, damp flats in the great cities! A cramping, retarding environment renders fully developed moral character well nigh an impossibility, and peevish, irritable, criminal dispositions as much of a necessity. Compare the condition of the child in such an environment with that of the child who is enabled to get out almost daily in summer and enjoy the enlivening and moralizing influences of "green fields and running brooks" and you will discover one of the reasons why the footsteps of many a criminal may be traced back into the dark alleys of his boyhood home.

Every Teacher a Physical Director. If the author is right in his contention, the duty of the teacher becomes apparent. He must be a sort of physical director for all the children under his charge and see that they are given play exercises of the proper kind and amount to allow the fullest possible development of will and character. Under normal

conditions these plays and games may go on very well for temporary considerations. Perhaps the first important duty is to take a sort of census of the school, in order to find out how actively the pupils engage in play. This will reveal the fact, most likely, that some are hanging back and taking no part in them at all. This matter must receive the same carefulness of investigation and treatment as would be necessary if a child should refuse to eat his meals. The two most common causes for the child's backwardness about playing with the others of his class are timidity and jealousy. If it be a case of the former the shyness will wear off with a little practice. The child overestimates the importance of his little part in the game, so he must be drawn into it by degrees. Specific means of inducing him to participate will be readily suggested by the circumstances. The chief point of emphasis here is that the teacher must be closely observant of the delinquencies mentioned and correct them as early as possible.

The author is acquainted with an extremely tall young man who suffered from timidity throughout his entire school life. His unusual height and awkwardness made him the common object of all the jests and gibes of the school. Over-sensitiveness caused him to keep aloof from all the school games and to lose the splendid benefits thereof. As a result he grew up without the aggressiveness to be desired in a man, and with a certain amount of negativeness in his moral character. The rough-and-tumble, acrobatic experiences of the school playground have a wonderfully valuable place in the child's training. They are really a part of

athletics, and should be so recognized. They are never reduced to rules, but they teach self-restraint, aggressiveness, and persistence, and give the one engaging in them a closer acquaintance with the manner in which others react. The pushing and shoving and jostling and bantering and the catch-as-catch-can method of wrestling are in the end destined to be both instructive and civilizing. The tall, lank boy referred to missed all of this and slunk away into the reading-room to be lost in some imaginative story. He was not well looked after by his teachers, and as a result he will always be eccentric.

The second cause of playground reticence, that of jealousy, is more difficult to deal with. The child, in this case, is fond of some certain pupil and he does not wish to see any others of his class play with him or her. This is a deep, depressing feeling, selfish in its nature, and one in which the child himself takes a kind of secret delight. As a result his conduct tends to be ugly and immoral, and he even vents his little ill feelings upon those not at all concerned. The best manner of treatment is to discover the special object of his envy, and to have him do that one some little act of kindness. This statement may sound rather paradoxical, but the best way to learn to regard more highly a person disliked on account of jealousy or envy is to do him some special favor. So, the young child who has the sulks may be induced to give up some advantage or thing to the object of his enmity, and the cloud will very probably lift at once, after which he will engage in the games with the others.

The Question of Rivalry. It may be remembered that, in another chapter, too much rivalry in matters of lesson-getting and reciting was discouraged. It was thought that there are enough higher incentives to work with. But with athletic games the case is different, for the very object of the sport is to win in a contest with some worthy rival. Athletics is not a serious life business, or should not be. The spirit of the game lasts only while the game is on, and those who stand opposed to one another with all their mental adroitness and physical strength during the play are trained to stand shoulder to shoulder in the serious matters —rivals on the field of athletics, allies in the battles of life. Here is suggested an opportunity for sealing lasting friendships and for engendering that splendid good-fellowship which forms one of the strongest ties in human society. Even the teacher engages enthusiastically in the game and urges on the opposing factions, but he is just as careful to give out the sentiment after the contest that it was "all in sport," and that "we are all members one of another."

It is the peculiar nature of athletic games that they give exercise to the primitive instinct of enmity between races and classes in the form of mock combat, mock heroism, and a splendid, æsthetic refinement of the old-time pitched battle that was once sure to result when two rival groups chanced to meet. Only a few generations ago it was customary for adjoining school districts to meet as real enemies of pugilistic war. There were broken bones, bloody noses, and black eyes. Out of the fistic encounters which took place there often sprung neighborhood feuds of long stand-

ing, which were attended by many murders and other crimes. But now primitive, warlike dispositions can find satisfactory exercise in athletic contests, which may be characterized by all the fierce struggle to win that any belligerent nature could demand.

The part taken by the spectator at the game is little less exciting than that of the participants. He first becomes fully acquainted with the rules of the sport and then, if the contest be a close one, he may be wrought up to a very high pitch of excitement as he follows the opposing teams. A complete psychology of sport is yet to be written, but during the excitement of, say, a close, stoutly contested baseball game the enthusiastic spectator's mind runs through a rather wide range of emotional ideas. He lives out in imagination the experiences of those who are in the critical parts of the play, and the organic accompaniments of his imaginative processes are many and various. The heart action is now retarded and now accelerated; and the respiration suspended while the result of a "three bagger" is being anxiously watched for may catch up with a rebound immediately after.

The Moral Aspect. The moralizing nature of athletic games in school is made operative almost wholly by their proper management. If some wiser and older heads, who have the real good of the cause at heart, do not take charge of them, these sports are very likely soon to degenerate into various forms of debauchery. Coarse, vulgar language, brutality and unfairness in the plays, betting on the outcome, and a disposition to win victory at any cost, are

some of the unsportsmanlike accompaniments of athletic games that are not well managed. So many commit the fault of letting these matters go until the conditions become bad and then they enter into a general denunciation of athletics in connection with school or college life. The fault lies in the management. Two or three definite ends must be earnestly sought, but none of these is suppression. First, create a sentiment in favor of clean athletics. Try to see that every player and every spectator is at heart really in favor of an honorable contest, and declare that such thing must and will be brought about. Then, as far as possible, induce pupils who stand high in their classes as well as in morals to take active part and secure places on the "first team." It is a much easier matter to support and cheer on an able player if he be worthy through and through.

The next important movement is to organize the non-participants into some sort of "rooters' club" and to teach them how to support the players. "The ethics of rooting" may furnish an excellent topic for a moral lesson. The school, if large enough, may be organized into two or more opposing factions each with its own team, and class, or factional spirit may be encouraged within reasonable limits. Hooting and yelling and inoffensive jeering are a legitimate part of the game, but coarse, insulting remarks about any member of an opposing team should not be allowed, and every effort on the part of a player to win unfairly should be brought under the strongest possible condemnation of the school. One matter much to be desired and by no means to be overlooked is the sentiment of the whole school. If

all its members can be led to approve, and to become fond of, real honor and fairness, and at the same time to disapprove of, and mentally to condemn, foul play, they then have thereby learned a valuable moral lesson.

The close observer of student nature cannot fail to recognize the normal child's disposition toward play and games of sport. There is a natural craving for these things, and a certain amount of boisterousness is necessary to the fullest satisfaction of this craving. Give the youth's savage nature an opportunity during the game to work off its wild enthusiasm and the latter will not be directed to some kind of disobedience in the school. Do not therefore make the plays too "tame." The force in the boy must work itself out, and the athletic game gives it just the necessary opening. Thoughtful supervision is the only prerequisite to success.

An Example. At a certain high school, the athletic spirit was very much on the wane. The principal and one instructor took charge of the athletics and reorganized them. A mass-meeting of the students, including the high school and the eighth grade, was called and athletic officers were elected. A body of rules governing the games was indicated. It was agreed that students of worthy standing would be given the preferences, and that a certain degree of low scholarship would be a bar to participation in important contests. A final statement expressed a resolution to make athletics in the school "clean and fair and honorable." Two baseball teams were then organized, representing the two literary societies of the high school. These were to play against each other and the nine young men making the

highest average in the practice games were to constitute the "first" team to enter an occasional contest with some other school. The whole group were then given specific instructions as to supporting the players; yells, songs, and the like, being practiced. It was reported that the wise, careful management of this matter resulted in much moral good to the community and the school. Even the strong opponents of athletics were won over and were later known to approve of and attend the games.

Athletics for the School. But here a word of caution must be offered, viz., the athletic games are in behalf of the school, and not the school in behalf of the games. Nothing brings out just adverse criticism quicker than to have this converse sentiment predominate. Say in substance to the students this: We are proud of our players and of what they are able to do to achieve success as athletes, but we are prouder of our school as a whole and of the intellectual and moral standard which it upholds. Games and plays constitute an important feature of every good school, but they are always subordinate to it. We are much encouraged by the fact that high intelligence, good morals and good, clean athletics are, or can become, so closely related to one another, and we are depending upon you to do nothing at the contest games or on the practice field that will bring the fair name of this school into disrepute. All attempts at unfairness, all swearing and all betting on the issue of the contests are, therefore, entirely out of order and uncalled for, and those who practice such things at the games are among the real enemies of the school.

Too many contests with outside teams are certain to become an overtax on the time of the players and a deterrent to the intellectual work of the school. The teacher must try to create a wholesome sentiment in regard to this matter, and whenever the occasion arises for him to make a final decision as to the number of inter-school games to be scheduled it must be rendered with firmness and always in the interest of the good work of the school. No importunities of the enthusiastic students must be permitted to interfere with his sober judgment. It matters little whether we are to consider a district school of forty pupils or a college of many hundreds of students, the great majority of athletic exercises should be confined to the home playground. In case of ward schools or high schools an occasional game may be permitted off the home field, but little outside playing is necessary if the matter be managed rightly, and much of it is demoralizing. Therefore, let the principal, or whoever is in charge of the athletic exercises, do everything within reason to keep up an interest in the home practice and to give the maximum number of students the benefits of the playground. Again, let it be remembered that the athletic exercises are for the sake of the school and not the school for the sake of the games.

A Cure for Depravity. There is much being done of late to discover if possible the physical correlative of mental delinquencies in children. Professor Lightner Witmer of the University of Pennsylvania is publishing a magazine, *The Psychological Clinic,* which has for its object "the study and treatment of mental retardation and deviation."

His purpose is to take school children possessing mental or moral weakness into the psychological laboratory and by clinical and statistical methods discover the underlying cause of the weakness, and to give relief by means of scientific treatment. Doubtless many kinds of mental and moral depravity are closely related to atrophies in muscle and nerve structures and a low tonicity of the entire organism, all of which may result directly or indirectly from lack of exercise. Gradually we must come to know more precisely the physical aspect of every such defect and the particular mode of treatment necessary. Then we shall be less inclined than ever to condemn any child as wholly depraved and incorrigible.

Superintendent H. W. Charles of the Boys' Industrial School of Kansas is a strong advocate of wholesome diet and muscle-and-brain-building work and exercise as means of alleviating mental and moral delinquencies. His idea in substance seems to be that a well-developed physical organism, brought about by means of proper diet and work and play, lies at the basis of mental and moral efficiency.

For many years the author has been making a special study of cigarette-smoking among boys. Among the reports of hundreds of cases which he has on file, there are several whose cures have been aided by means of athletics. So often these boys manifest mental lassitude and many varieties of physical ailment. These matters in themselves would mean weakness of will power. Under such conditions the boy is unable to carry out his most serious efforts to reform. Several superintendents and principals have reported that

such athletic sports as football actively undertaken have proved very effective means of aiding the system in throwing off the poisonous substances, and that as a result of such exercise the moral courage was awakened and the cigarette habit broken. While the foregoing may be regarded as a mere experiment, it is certainly worth trying. It is hoped that many other such favorable reports will be forthcoming.

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CHAPTER XXIII

SCIENTIFIC CHILD-TRAINING

Old-Fashioned Methods. What, of scientific value, do we really know about developing character in the young? Why cannot there be instituted by legal enactment a standing committee of experts of eminent ability and unquestioned authority to make experiments and inquiries extending over a wide field, with a view to bringing out a body of scientific knowledge on the subject of child-training in the home? There is to-day no such service being performed. Other matters of less importance, such as sheep-raising, have long since been reduced to a science, but parents go on rearing their children as of old, guided only by instinct, tradition, and prejudice. As a result there are among us to-day thousands of criminals, paupers and genteel dependents whose lives might have been made useful through intelligent training in childhood. Actual experiments might be carried on in orphan asylums and reform schools and in ordinary homes where there was a willingness to coöperate in the work. The field of inquiry would be constituted of the country at large, while the results in all cases would be carefully tabulated.

Agricultural Experiment Stations. In every state in the Union there has been established a station for experi-

mentation in matters that pertain to the productiveness of the soil and to animal-husbandry. Hundreds of thousands of dollars are being expended annually in an effort to enable the producer to realize more satisfactorily upon his investments in every type of agricultural animal, from the "beef steer and his sister" to the "helpful hen." The government at Washington keeps hundreds of experts employed in the bureau of plant industry. Many of these are stationed in various parts of the country, while others are traveling abroad to study and collect cereals and grasses that might be successfully propagated in the United States.

All this work is contributing immensely to the country's wealth, and especially to the material well-being of the agricultural classes. The results of all these investigations and experiments are worked out on the basis of mathematical science. Tabulated bulletins are being sent out by the hundreds to those interested, so that scientific methods of farming and stock-raising are fast supplanting the old-fashioned, wasteful ones. There is now extant much definite knowledge as to the proper methods of developing new and desirable types of response in productive domestic animals and of eliminating undesirable ones. There are known methods of adaptation of plants to various conditions of soil as well as of changing the soil conditions to meet the requirements of growing plants. Moreover, if a farmer has a three-year-old horse that balks or a yearling calf that acts queerly, he may appeal to the experiment station and receive, free of cost, a scientific bulletin and a lengthy personal letter covering the case. But if the balky or queerly act-

ing creature chances to be his sixteen-year-old son or his fledgeling daughter, he must fight out the case alone, assisted perhaps only by a despairing wife.

These hearsay and traditional methods of training children have been in use so long that it is difficult as a mere matter of course for us to realize the need of a change. Time was when pioneer conditions were so common throughout this country that the mere attending circumstances would be depended upon to bring out forceful and effective traits of character. But in these modern, prosperous times such conditions have almost entirely disappeared. The people are becoming more and more closely massed and allurements to exciting and sensuous experiences are becoming correspondingly more numerous in the child's environment. Old-fashioned methods of training the young are no longer adequate to cope with these changing conditions. The child gets into the exciting situation before he has had enough practice in self-restraint to enable him to combat it successfully.

Well-Born but Poorly Reared. We have on our hands to-day thousands of young men and young women who have been well born but ignorantly reared and who, as a consequence, are deficient in morals and economically useless. Of the many, in the college where the author teaches, who fail in their classes, very few are naturally dull and inapt in their studies. Most of them were born with potentially bright minds and quick wits, and they are the children of industrious, prosperous parents, but they are pathetically inefficient because of over-indulgence in purely

impulsive and spontaneous forms of activity during the years of childhood and adolescence, and an almost complete lack of experience in sustained, purposive effort. This same condition is existent in all our schools and colleges. We have all around us parents who have themselves become efficient workers largely through the rigorous experiences that are incident to pioneer life, but who are more or less ignorant of the source of their own strength of character.

The wealthy centers of the country are full of Harry Thaws—minus the shooting-incident, of course. These over-indulged, sickly, sentimental young men are driven to every conceivable kind of depravity by the insatiable craving of an abnormally sensual nature. As times grow more prosperous, a dissolute manner of rearing the young threatens to become our chief instance of criminal negligence, unless we develop some scientific means of correcting the evil. This evil is greatly aggravated by virtue of the fact that our newspaper publicity often makes one of these dissipated youths the chief player in a great national theater. Witness the Thaw case. Thousands of such young men—and there will always be found a young woman to match each one—will risk their bankrupt reputations and even their necks in the interest of getting into the lime-light and securing the applause.

A Scientific Method Suggested. And so, it might seem advisable to establish throughout the land a number of experiment stations for child-culture with the same exact methods of investigation and of issuing bulletins that characterize the agricultural experiment stations. There would

be a general disposition to scoff at these methods and to throw the bulletins unread into the waste basket, at first, as was true in the case of the agricultural bulletins. But they likewise would win on their own merit in time. The public schools are already receiving much assistance of this nature as a result of the fundamental investigations of such men as President G. Stanley Hall and Professor E. L. Thorndike. But their, as yet, few contributions do not come at all into the hands of parents. This other work ought to be carried on by the same kind of experts as they are, and the results could then be sent in condensed bulletins into every home where there are children. There is much kindergarten material available, it is true, but this serves only to entertain children and to dissipate their energies rather than to give practice in self-mastery and self-direction. When we think of the vast annual expenditure for combating the evil doings of those who become criminal largely as a result of careless and ignorant methods of early training, surely this matter ought to appeal to us from even a monetary standpoint.

Mental Development Recapitulated. In order to get at this matter rightly it will be necessary to recapitulate one part of this text briefly. Modern science has already established a number of important points with reference to mental and moral growth. For example, it is shown that a mature man's conduct is a kind of net result of two forces, namely, inherited dispositions and those acquired by practice during childhood. This may mean in a given case that, whereas a man inherited a tendency toward intoxication or some criminal type of conduct, there was developed during

his childhood and youth a set of dispositions that have successfully combated the evil tendencies inherited. This would be a case of environment overcoming the natural effects of heredity through specific, intelligent training. It is also agreed among psychologists that every disposition, every type of familiar mental or physical activity has correlated with it a structure in either the brain or some other part of the nervous system.

Accompanying every thought-process, then, there is not only a brain-process, but, evidently, other organic changes or activities more or less closely related to the degree of intensity of the thought. Under stress of one's course of thought for an hour, there are measurable changes in the heart action, the blood distribution, the respiration, and other organic processes. These inner readjustments may result in one instance in better functioning of the digestive apparatus, and in another in greater readiness to perform an outward act.

One's outward act is determined largely by his most habitual type of thinking. That is, his thought habits and his act habits are closely related. Scientific mind-development goes on chiefly in a two-fold series of processes. One series brings out the desirable possibilities that are latent in him. This is a positive education. The other series is intended to hold in check or suppress latent possibilities or actual tendencies that are undesirable. This is a negative education. This dual nature of the educative process ought to be clearly understood. The one being educated is constantly being set over against himself. His lower impulses

and base desires are in many cases to be curbed and prevented from functioning by a set of higher dispositions developed chiefly for the purpose of combating them.*

The majority of our children of to-day are born with fairly good, well-rounded brain structures. What we need more than better brain inheritance is a better and more scientific set of rules for developing the brains that we have, and such rules of procedure should be made the common property of all who are in any way related to rearing and educating children. To make the work most effective, these principles must be developed by laboratory methods by a body of specialists and received by the masses in a somewhat dogmatic manner.

Man Long an Infant. One of the most significant facts with reference to man's education, is his long period of infancy. For at least the first score of years there is being developed within him through experience a central nervous system the functioning of which makes possible his various modes of mature thought. Now if some important kind of experience or practice is omitted in his early training, then the corresponding nerve structures are lacking and so much mature conduct is rendered impossible. It may be reasonable to say that a thief has an inherited disposition to steal, but might it not also be reasonable to urge that, if begun early enough, there could have been developed through

* There is possibly a third series of educative processes, namely, such as tend to transform instinctive dispositions once useful in preserving the race into their refined modifications. Thus the disposition to engage in mortal combat with a strange person, once inherent in the race, and probably still more or less instinctive in young boys, has been transformed into what we call manly courage.

intellectual training a disposition that would successfully combat the undesirable one? It has been said that the thief has a way of promising himself that each offense is the last one. But he is lacking in just the kind of self-restraint necessary in his case.

A Question Outline. The following outline is meant to be suggestive of a plan for carrying on this work of experimentation.

I Make exact physical measurements and examinations of children of vicious tendencies and habits, showing

1 The comparative weight of the whole body.
2 Any possible under-developments or atrophies in muscles and brain centers that would help to explain these evil dispositions.
3 Whether or not there are diseased tissues and organs that may tend to cause or aggravate the vicious type of consciousness.
4 Whether or not the theory herein set forth of the possibility of developing counteracting dispositions has any validity.

II By the same careful, painstaking methods, make tabulations of the kind and character of child-experiences that have contributed most directly to habits and dispositions that are (a) useful, (b) useless or a hindrance to the individual and social well-being.

1 What specific modes of training will develop the former and make them permanent?

2 How may the latter be most easily suppressed or eliminated or transformed into more desirable ones?

3 What effect, if any, have these various modes of training had upon instincts or inherited traits of character good or bad?

4 At what stage of development and in what specific manner may parents instruct their children in matters relating to sex?

III By the most exact and scientific methods possible, make a study of suitable mature persons.

1 How may one, if at all, gain control of the nervous and muscular organism so as to bring about self-poise, or the ability to become strenuous or poised by turns at will?

2 Inquire into the possibility of one's renewing or perpetuating his mental youth by intelligent care of the body and by the cultivation of certain habits of thought.

3 Discover the specific methods whereby one may acquire the power of initiative and the habit of persistent, sustained effort in one line of activity.

4 Do the offspring of parents who possess characteristics named in this chapter (e. g., of pioneers) manifest as a rule these same rugged, determined dispositions?

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